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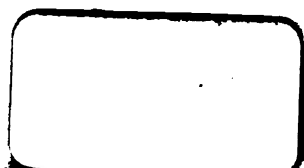
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THE
RAILWAY REGISTER,
AND
RECORD OF PUBLIC ENTERPRISE
FOR
RAILWAYS, MINES, PATENTS, AND INVENTIONS.

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TO

GEORGE CARR GLYN, ESQ.,

CHAIRMAN OF THE LONDON AND BIRMINGHAM RAILWAY COMPANY,

THIS THIRD VOLUME

OF THE

RAILWAY REGISTER

IS DEDICATED,

BY

HYDE CLARKE.

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THE

RAILWAY REGISTER,

AND

Record of Engineering and Public Enterprise.

THE STATE AND PROSPECTS OF RAILWAY AFFAIRS.

AFTER a season of unexampled excitement and speculation in Railway investments, a reaction has taken place, equally remarkable in the suddenness of its approach, and in the pertinacity of its continuance. Those only who study the share lists can form an opinion of the extent to which this depression has gone, and of the effects upon the pecuniary resources and expectations of individuals which it must have occasioned. When we consider that in the course of the six months from March to September there have been some three or four hundred new schemes in the market, all at premiums of from £1 to £6, and even £10, per share; when we reflect that many thousands of shares in each of these schemes have changed hands at those prices; when we now find that with few exceptions all those schemes are at a discount of from 10s. to 30s. per share, we may form something like an idea of the amount of money which has changed hands upon this class of scrip alone. Say, for instance, for the sake of illustration, that ten thousand shares per company have been sold, at an average premium of £2 per share, we have here £20,000 worth of premiums in each scheme, and multiplying this by 300, we have a gross "tottle" of six millions sterling absolutely thrown away by various individuals in the community. But this is not all, nor nearly all. To this loss of premiums upon new projects we must add the discount to which they are all, or nearly all, more or less subject; and this affects, be it borne in mind, the nominal value of the whole amount of capital paid up upon them. Writers in the public journals have been ingeniously calculating the amount of capital which will have to be paid up in deposits upon the several new projects which have come forward for next session. It has been even estimated as high as thirty millions, which would about represent the tenth part of the whole nominal capitals of these schemes. But it soon became obvious to common sense that this was an exaggerated view of the case, and that nothing like this amount of capital could or would be subscribed upon these speculations in time for the meeting of Parliament. The sum has since been variously estimated; and upon the whole it may not be

far wrong as a guess to put eight or ten millions as the amount of deposits which will be actually paid into the Bank in compliance with standing orders. To this add as much more as the aggregate of capitals of companies not fully subscribed, and we have a total of say sixteen or twenty millions, which the public have put out of their pockets in the way of deposits upon new schemes. These deposits have generally been at the rate of £2 or £2 10s. per share; and considering that the general mass of these shares have gone to a discount of say one half per share, we have a total depreciation upon deposited capital of say four millions of money; making a total upon new projects of ten millions sterling.

But it is not merely in new projects for next year that the public have laid out their money unprofitably, or rather that their nominal capital has depreciated in value. The lines which have obtained their bills, and whose works are in progress, have suffered to a still greater extent, because their prices were higher than those of their younger brethren; and the old established lines themselves, the old parent stock, paying their 5, 8, and 10 per cent. dividends, have come down along with them in very sympathy. Let us see to what an astounding extent this has taken place; and first with regard to some of the once most popular lines in course of construction. The prices have been fluctuating, but we will endeavour to fix a just medium as that at which they stood about the beginning of September last—placing in juxtaposition the prices at which they now stand:—

	Sept. 1845.	Dec. 1845.	Loss per share.
Aberdeen	2 pm.	par	£2 0
Caledonian	8½ pm.	2 pm.	6 0
Chester and Holyhead	8 pm.	1½ dis.	9 10
Great Southern and Western (Inland)	12 pm.	2½ pm.	9 10
Lancaster and Carlisle	32 pm.	10 pm.	22 0
London and York *	5 pm.	¾ pm.	4 5
Lynn and Ely	5 pm.	1½ pm.	3 10
Lynn and Durham	3 pm.	1 pm.	2 0
Newcastle and Berwick	24 pm.	6 pm.	18 0
Newry and Enniskillen	2 pm.	1½ dis.	3 10
North British	17 pm.	4 pm.	13 0
Oxford and Worcester	17 pm.	par.	17 0
South Wales	3½ pm.	1 pm.	2 10
Trent Valley	18 pm.	13 pm.	5 0

We have here evidence of an enormous depreciation in the nominal value of the capital distributed amongst a large portion of the public. We will endeavour to make a guess at this amount of depreciation in figures. The total amount of estimated capital of the lines in progress is about eighty millions. Of this sum, say twelve millions are paid up; and to this add the premiums which they bore, being on an average twice as much again; this would make a total of thirty-six millions nominal capital engaged in lines now in progress. These premiums, it will be seen, have suffered at various rates, as from £17 to nothing, £32 to £10, £3 to £1. Let us, for the sake of argument, say that two-thirds of the premium value is gone; and this would show a loss upon the nominal value of this description of investment of sixteen millions. We need hardly add, that if the holders of these scrip were all to attempt to realize at the

* Was considered nearly in the same light as having passed.

present moment, the loss they would have to share amongst them would be much greater. And when it is considered that many of them are obliged to sell some of their shares, or other description of property, in order to pay their calls, we may well imagine that the pecuniary pressure spread over society at the present moment is very considerable; leaving it not to be wondered at that not only the established paying lines have suffered as they have done, but the public funds also; *ex. gr.*

	Sept. 1845.	Dec. 1845.
Birmingham	245	210
Brighton	80	60
Croydon	27	20
Great Western - -	220	145
South Western	82	73
South Eastern and Dover	48	34

We have as yet only considered the depreciation of capital invested in British railways; to this must be added a very large item in the foreign account. Indeed, in this department, the loss has been even more signal and discouraging than that upon our native investments. The contemplation of this field is so distressing, that we will only hurriedly mention a few instances. Louvain and Jemappe have been as high as 3 pm., they are now 2 discount; Namur and Liege have gone from 5 pm. to 2 dis., Luxembourg from 3 pm. to 2 dis., Dendre Valley from 2 pm. to 2 dis., West Flanders from 2 or 3 pm. to 1 dis., Dutch Rhenish from 7 to 2 pm., Jersey from 3 pm. to $\frac{1}{2}$ dis., Overysse from 3 pm. to 3 dis., Royal North of Spain from 4 pm. to $1\frac{1}{2}$ dis., (indeed of this scheme it is reported that after spending all their deposits in surveys, it is found that the line is impracticable across the Pyrenees). Great Western of Canada from 5 pm. to par.

Upon these data we leave to others the task of calculating how much hard cash may have been lost by the public upon foreign railway speculations, in addition to that at home, since the last summer. It will, undoubtedly, amount to a very considerable sum; and though it may be averred that in great measure the money so expended has been derived from surplus or saved income, we are afraid that a very considerable portion of it has been capital actually withdrawn from other investments, and placed "out to interest" in these speculations, in the hope of deriving increased profits. When we reflect upon this, and on the class of persons who have chiefly been liable to these temptations, we cannot but feel that a very wide-spread distress must be the result, from which the community will not speedily recover. In a word, the public have been "bit" so severely by the projectors of railways during the late mania, that they have neither the means, out of their ordinary resources, nor, we fear, the inclination to contribute their capital for the prosecution even of the works of *bond fide* and well-considered undertakings. Is it not lamentable to reflect how the noblest and most valuable inventions may thus be perverted when in the hands of designing and unscrupulous individuals; how the public advantages and pecuniary profits of such lines as the London and Birmingham, Great Western, and others, may be countervailed and lost upon abortive imitations!

Much anxiety has been expressed as to the manner in which Parliament is by possibility to get through the enormous amount of railway business with which it is threatened in the coming session; whilst in

the city the cry has been, "Where is the money to come from" for the deposits required by the standing orders of the House? We always considered that there was much groundless uneasiness on this score. Alas! for the projectors of the twelve hundred new schemes, how few of them will get through the various prescribed stages before arriving at the doors of Parliament,—how few of them will succeed in passing the first ordeal therein, namely, the Committee of Standing Orders,—how very little out of the three hundred millions nominally subscribed in these undertakings will in reality be called for! Probably projects to the amount of eighty or a hundred millions may make their way into the House,—and two-thirds of that amount come to a committee of merits; and, arrived there, how they will be thinned in their subsequent course,—how they will be scattered and lost,—only those who know the ways of Parliament can imagine. In fine, with all the terrible long list blazoned forth by Mr. Spackman in the Times before us, we expect to see much less railway business actually brought before Parliament in the ensuing than in the last session, and of that a much smaller proportion successful. Whilst upon public grounds there are many reasons, in the present state of political and financial affairs, to congratulate the country upon this prospect, it certainly behoves us to commiserate with those who, joining blindly in the late mad speculation, have lost heavy sums of money upon schemes which never could, and perhaps by their projectors never were intended to be carried into effect. Without being alarmists or croakers, we must say that the late railway mania, in its extent and application, in the manner in which it was excited and taken advantage of by designing persons, amounted to a positive national evil; and that the attention of Parliament ought to be drawn to the subject, with a view of protecting the public from such a system for the future. It is equally due to the public and the honest railway promoter that such interposition should take place in their behalf. Before discussing the question as to how this remedy might be applied, we proceed to give a few instances of recent occurrence illustrative of the manner in which the poor public have been made the victims, we will not say of fraud, but certainly of misplaced confidence and fallacious expectations.

At the recent meeting of the Direct London and Exeter Company, held on Monday the 15th of December, the following statement of the affairs of the company came out in the course of the chairman's speech, and the official reports of the committee and engineer. "The company was formed" (that is, was provisionally registered) "on the 19th of May last. On the 16th of November the allotment of shares took place." Why this six months' delay took place we are at a loss to imagine. The middle of November was, as the chairman—Sir Bruce Chichester—naïvely remarked, "a very unpropitious time," in fact a time when the bubble had burst, when the Bank had given its first warning by raising its rate of discount, and when to pay upon an allotment would have been considered absolute madness, and was with many a positive impossibility. Yet it was at this "unpropitious" moment, after six months' delay, that the projectors of this company proceeded to call upon the public to subscribe their money for a capital of three millions, with power to raise a fourth. The number of shares was 120,000. Applications had been made for 400,000. Yet the committee only allotted 61,000; and what was the consequence? Out of that number

only 23,560 were paid upon, the amount realized being 32,395*l.* The sum required as a deposit under the standing orders for a company of this nominal capital is 300,000*l.*, consequently in the middle of November, just when the money panic was at its height, the directors of the Direct London and Exeter had about a tenth of what they required to take them before Parliament. What rational hope could they have had of raising the balance? And having no such hope, how did they proceed? Instead of retiring from a useless contest, and winding up the affairs of the company, and saving at least a portion of the deposits paid by a few unfortunate individuals, they still persevered in all the extravagant outlay which these affairs incur, just as if the concern was in the firmest and most comfortable position; and on the 15th of December the following gratifying account is given by the chairman, to the subscribers, of their 32,395*l.* deposited:—

“The first item was that of preliminary expenses, 4,346*l.* 11*s.* 3*d.*; the next item was that of engineering and surveying, which amounted to 14,050*l.*; and the law expenses were 8,791*l.* The advertising expenses were 2,639*l.* 19*s.* 4*d.*; printing, stationery, &c., 584*l.*; travelling expenses, 236*l.*; rent, salaries to secretary and clerks, 557*l.*; and miscellaneous expenses, 166*l.*, leaving a balance of 492*l.*”

Say in round numbers 500*l.*, which divided amongst 23,000 shares would give about fourpence three farthings to return per share, those shares having cost 1*l.* 7*s.* 6*d.* After this it is very droll to hear Mr. Braithwaite, the engineer, getting up to address the meeting in such terms as these:—“It is now *my pleasing duty to congratulate you* upon the result of our labours in having completed the surveys and sections in time for deposit with the clerks of the peace and the Board of Trade.” What follows, however, lets out the unwelcome secret that the sections and surveys, though *completed* in time, were not delivered in time. “Although,” adds Mr. Braithwaite, “by the denial to us from the Great Western and South Western Railway Companies of special trains, a delay in the more distant deposits occurred.” In short, they were not deposited by the prescribed time at Exeter, Sherborne, and some other place, and consequently the standing orders have not been complied with. And yet, with this fact staring them in their face, the secretary, solicitor, and engineer of this company would fain persuade the public to “go on” subscribing their money, if they could go on with nothing else.

The next case we shall refer to is that of the Rugby, Derby, and Manchester. The history of this scheme is worthy of remark. It affords a striking contrast to that of the Direct Exeter, inasmuch as although its shares were paid upon, and sufficient money in hand, the plans and sections were not such as the engineer could congratulate either himself or the shareholders upon. But, first, of the financial statement. It appeared from the report that 35,820 shares had been allotted; that the deposits had been paid on 30,600 shares, producing 80,325*l.*; that out of that amount 7,000*l.* had been paid to Mr. Blount, the engineer, and 5,911*l.* to Mr. Brewer, the late solicitor of the concern; that the company had at interest, at Messrs. Masterman’s, 20,000*l.*, and at the London and Westminster Bank, at interest, 40,000*l.*, and 4,340*l.* not at interest; that Mr. Blount claimed a further sum of 6,000*l.*, and Mr. Brewer had sent in bills for professional charges amounting together to 9,638*l.*, there being a balance still due to him of 3,747*l.*

With respect to the engineering, for which the moderate sum of 13,000*l.* was charged, we have the following account :—

“A letter was then read from Mr. Hawksworth, an engineer, who had been appointed by the committee to go over the line, on the plans and sections that had been prepared and deposited by Mr. Blount. That letter described the plans and sections as being full of errors and deficiencies, the height of the tunnels required being stated as twelve feet, under which tunnel no locomotive engine could travel; it further stated that the tunnels, instead of being collectively but one mile in length, would be very nearly nine miles, and that the cuttings and viaducts could not be executed under a cost of five millions.”

And upon the whole line the works it was found would cost 50,000*l.* a mile, such were the engineering difficulties. In short, it was “a complete failure,” and the plans and surveys which had cost 13,000*l.* were declared to be worth no more than so much waste paper. Under these circumstances it was agreed to return 1*l.* 10*s.* per share, out of 2*l.* 10*s.*, to the subscribers, reserving a balance of some 5*s.* or 7*s.* per share for outstanding accounts.

When Parliament meets, it will remain to be seen how many other companies are in the same situation as the above two; whether on account of the irregular and incomplete deposit of their plans, or the worthlessness of such plans when deposited. It is too obvious, from the few facts which have already come out, that the boasted deposit of the plans and sections with the Board of Trade, and clerks of the peace, is a most fallacious test of the stability and real working character of the schemes. There is no preliminary test to which these documents are submitted before they are lodged in those departments, and therefore no security for the subscribers and the public that they are really what they pretend to be, or that they are sufficiently accurately prepared to bear the most casual inspection. For instance, we find this very unfortunate affair,—the Rugby, Derby, and Manchester,—included in the published list as having duly deposited its plans; and with respect to these plans we have afterwards the admission that they are only so much waste paper. How many more may stand in the same category?

We have some instances, however, in which new companies have not even gone the step of lodging a bundle of waste paper, but who have incontinently thrown up their enterprize, leaving the public to ask why in common decency or common sense they ever began or undertook it. Of these there are three which have become somewhat notorious by the conduct which they have pursued towards the unhappy individuals who were induced by their vaunting professions to come forward as subscribers. The names of the Great Manchester, Rugby, and Southampton, the Great Welsh Central, and the Brighton and Cheltenham Direct, must ever be memorable in the history of “Popular Delusions.”

Somewhere about the middle of August, as we recollect, there being already some four or five schemes in the market to effect very nearly the same purpose, “the Great Manchester, Rugby, and Southampton” project was announced, with a long and “influential provisional committee.” The public eagerly applied for shares, but for some unaccountable reason they were not allotted until the first day of the gloomiest November which the good city of London has seen for many years; 134,000 shares were then allotted, and only 4,490 paid upon at two guineas each. The last

day for paying these deposits was the 7th of November, and on the 8th the committee, according to the secretary's report, being "confident that the plans, sections, and books of reference would be ready for deposit with the clerks of the peace and the Board of Trade," issued a circular to the allottees who had not paid their two guineas a share, inviting them to pay a ten shilling deposit; and this circular, duly signed "G. J. Farrance, Secretary," concluded as follows:—"I am desired to add, that the continued progress of the engineer's department is so satisfactory as to make it *quite certain* the plans will be ready for deposit before the 29th instant." To this invitation, with this assurance annexed, the allottees of 1,515 shares responded, adding 757*l.* 10*s.* to the funds of the concern. On the 20th of November, however, "*it was found* that the deposit of plans, &c., could not be made. The committee *discovered* that they had been deceived," and had been the innocent means of deceiving the public, and doing them out of their money on a worthless pretence. What did they do, then? Did they offer to make atonement to the public for the wrong they had done them? Did they confess their incompetency and inefficiency for the task they had undertaken, and retire with dignity from a field they were not able worthily to occupy? Quite the contrary. They sent out another circular, in which, without informing the allottees of the discouraging "discovery" which they had just made, they proposed to receive a sort of preliminary deposit of 2*s.* per share, instead of 10*s.*, which was instead of 2*l.* 2*s.* At this moderate rate 5,280 shares were paid upon, making the sum of 528*l.* The total amount screwed out of the public in these various sums appears to have been 10,705*l.* 5*s.* How this was expended, and how far it has fallen short of the requirements of the concern, is thus stated in the accounts furnished at the general meeting, held on the 17th of December. The first item, by the way, is rather indefinite:—

"Paid for <i>various matters</i> connected with the progress of	
the company	£4,300
Paid Mr. Giles	3,700
Bills come and remaining to be discharged	8,000
Sundry other expenses not yet ascertained, say	1,000
<hr/>	
Total liabilities	17,000
<hr/>	
Showing a deficiency of	6,300 "

Upon this state of affairs, Mr. Moon, one of the managing committee, makes the following remarks:—

"Now, as it would be most unreasonable that those who had paid the two guineas deposit should have to bear all that loss, and as it was at least desirable to pay them a guinea back, that would take off 4,714*l.* 10*s.*, leaving but 6,000*l.*, and show an actual deficiency of 11,000*l.* If the whole of the applicants for shares were to pay up 20*s.* on each share, the debts would be easily paid off, and 1*l.* returned on each share to those who had paid two guineas; but to get them to do so was the question."

"That is the question" indeed. How to make people pay large sums of money which they are neither legally nor morally bound to pay, is indeed a problem in the modern philosophy of "raising the wind." The Great Manchester Company, however, resolved to attempt it. In the

first instance they sent a circular to the allottees, which extraordinary document ran as follows :—

"No. 1, Royal Exchange-buildings, London, Dec. 2, 1845.
 "SIR,—Your application for shares in this company having been submitted to the committee, they allotted you shares, as set forth in the letter of allotment addressed to you in common with the other applicants, on the 1st of November last. Since it does not appear, on referring to the bankers' returns, that you have paid the deposit, and fulfilled the other conditions you undertook to do, I have to inform you that *you are held responsible for the full amount of such deposit of 2l. 2s. per share* ; I have further to inform you, that the only way by which you can be *relieved* from your responsibility to this company, is by payment, on or before the 8th of December instant, of *two shillings per share*, to any of the undermentioned bankers, who will fill in the receipt at the foot hereof.

"I have the honour to be, Sir, your very obedient servant,
 "G. J. FARRANCE, Secretary."

Now, before proceeding to the consideration of the moral bearings of this demand, let us first consider the accuracy of the financial statement it is coupled with. Mr. Moon, the managing committee-man, whom we have just quoted, says that 1l. a share all round would be required, which is obviously an exaggeration, as it would give 134,000l. to meet 17,000l. Two shillings a share, supposing it paid on all the allotments, the surplus being returned as Mr. Moon proposes to those who have paid the larger deposits, would only give 13,000l., which would still leave a deficiency of 4,000l. at the present moment, very nearly what is now existing ; and how would the managing committee deal with that ? We are almost tempted to question which is the object uppermost in the minds of the managing committee in urging this two shilling screw, the return of the larger deposits to the unlucky payers, or the making up their own deficiencies. But whichever it be, we apprehend that they have neither law nor equity on their side in the demand.

Upon the face of their circular we are impelled to ask, how can a man "responsible" for two guineas, be absolved from that responsibility by the payment of two shillings only ? And upon what pretence is this smaller sum demanded ? The applicant for shares in his letter contracts to pay a deposit of two guineas a share, believing that to be an adequate sum to carry out the first purpose of the company, namely, the obtaining of an Act of Parliament. But he would not have been willing to pay a deposit of 2s. per share, which he must have known would not suffice for any useful purpose. If the applicant is bound at all to the other subscribers to the undertaking, he is bound (and they equally bound) to the full extent stated in his compact, and he and they can only be relieved from it by mutual agreement. There is no other means by which such a partnership or compact could be abrogated. The Registration Act enacts that the shareholders' deed shall contain a clause, providing for "the duration of the company, and the mode or condition of its dissolution ;" but this cannot be held to bind those who have not signed it. The only course by which a company can be dissolved, and its intended undertaking abandoned, would be by summoning a general meeting. But the Act does not empower companies to hold general meetings until after *complete* registration ; and before a company can be completely registered, the following, amongst many other matters, must have been done : "the deed of settlement must be signed by at

least one-fourth in number of the persons who, at the date of the deed, have become subscribers, and who shall hold at least one-fourth of the maximum number of shares in the capital of the company." Now this has not been the case with the Great Manchester Company; only 4,490 shares having been fully paid up out of 130,000, and a great number of the holders of those shares have not been permitted to sign the deed. This company, therefore, is incompetent to act as an incorporated company, nor are its acting members in any other position than that of ordinary partners.

The question then remains, whether a body of persons so circumstanced (which, by the way, is the case with the promoters of the Great Welsh Central and many others) can proceed in any way against the non-paying allottees of shares to compel them to specific performance of their contracts. We aver at once that there is no doubt but they can do so by a bill in Chancery, provided they can show that they and all other allottees are ready and willing to fulfil all their part of the contract according to the terms of it, to be gathered from the prospectus of the project and the letter of allotment.

"Let us suppose," says a contemporary, the *Railway Examiner*, "a suit commenced under such an apprehension of the bearings of the case. One unfortunate allottee is singled out from the mass, and the terrors of Chancery let loose upon him. He answers,—'I proposed to take one hundred shares out of one hundred thousand, for a certain undertaking;—I am ready to do so;—but where are the other ninety-nine thousand? I proposed to enter into a limited partnership with others,—where are those who were to form it? Where are the rest of the partners? Where are the rest of the allottees of shares? We are all partners,—we are all in the same case,—and, in virtue of the known rules of equity practice, I will file a bill of discovery to know the names of every other applicant for shares, to whom shares have been allotted, with a view afterwards of moving to amend the plaintiff's bill, by including them all as parties.' We apprehend that this is a fair statement of the equity of such a case; and the wide spread confusion and ruin to which it would lead would be too great for the wholesome principles of law or equity to tolerate."

The managing committees of these abortive projects appear to have overlooked the fact, that there is a very material distinction between the responsibility of a promoter of a company, and a subscriber to it; yet this distinction is clearly admitted in common practice, and by the provisions of the statute already referred to. In the explanatory clause of this Act, we find the following definitions:—

"The expression, 'promoter,' or 'promoter of a company,' to apply to every person acting by whatever name *in the forming and establishing* of a company, at any period prior to the company obtaining a certificate of complete registration:

"The word 'subscriber' to mean any person who shall have *agreed in writing to take*, or have taken *any shares in a proposed* company or in a company formed, and who shall not have executed the deed of settlement, or a deed referring thereto:

"The word 'shareholder' to mean any person entitled to a share in a company, and who has executed the deed of settlement, or a deed referring thereto."

There is in these three definitions a marked distinction between, 1st,

those who act in the first instance "in forming or establishing a *company*;" 2ndly, those who "have agreed to take shares in a *proposed company*, or in a company formed;" and 3rdly, those who are entitled to shares, and have signed the deeds. There is no doubt, in our mind, that the legislature contemplated the case of companies proposed to be formed, and not being formed, as altogether different from that of a company formed,—and that parties "agreeing to take shares" in a company "proposed to be formed," do so contingently only upon the company's being formed, and that not being so formed, the agreement does not take effect. The promoters not being able to fulfil their part of the contract, namely, to deliver "the shares," the subscriber is not entitled to pay for what he is not to receive. The following passage from Clitty on Contracts, p. 244, elucidates this distinction, and by what act on the part of the subscriber it may be invalidated :—

"It may be laid down generally, that if a subscriber or member interfere, and appear to the world to be interested as a partner, by attending meetings, becoming director, or acting as one, or giving orders, by being a party to resolutions for them, &c., he becomes responsible, as a partner in the company, to the creditors thereof, although the company originated in fraud, to which he was not privy, or he has not become an actual partner, by signing the required deed, &c.; or the company has never been actually and finally formed, or has been abandoned or become insolvent."

It is not our province, nor have we space, to go into more detailed argument of this interesting subject. We may, however, refer to the recent case of *Wood v. the Duke of Argyll* (Scott, N. R. 885), where the defendant was sued by a creditor to a company which had become insolvent, as a partner or shareholder in it; but it being proved that the proposed capital of the partnership in which the defendant agreed to take a share had not been raised, it was held that he was not a partner, and got a verdict accordingly. In fact the company proposed to be made was not made, and the intending shareholder was not implicated in it or its liabilities in any way. We need hardly add that if such intending shareholder is not liable to the creditors of the partnership, he cannot be liable to the promoters, for it is only to pay the liabilities of the concern that the promoters can demand his contribution, and not for their own use and enjoyment. We conclude this portion of our subject by quoting a passage from Mr. Lewis's little volume, "*On the Liabilities of Promoters, Shareholders, &c.*," from which it appears that subscribers to inchoate companies are not liable to pay their deposits, but may demand them back if they should have paid them previous to the discovery of the failure of the scheme :—

"The general rule is, that in the absence of any agreement on the subject, if the project fail to become a company from lack of subscribers, or by reason of its abandonment, whether for good or bad reasons, or from the mismanagement or wilful misconduct of the projectors or managing body,—in every such case, the subscribers, who are not themselves parties to the cause of failure, are entitled to a return of all their deposits free of all deduction. . . . In short, the position of a subscriber before the complete formation of a company, is similar to that of a person proposing to become a partner in an ordinary partnership, upon certain terms being complied with."*

* Whilst this article has been in process of writing, the Great Manchester people have announced a threat of advertising all those who do not pay up their two shillings per share "as defaulters." Beware of the law of libel, gentlemen!

The case of the Great Welsh Central concern is very similar to that of the Great Manchester, &c., with this additional feature of aggravation, that the concoctors of it, without even vouchsafing the pretence of a public meeting, without submitting a single item of account, boldly demand four shillings a share as a compromise from all allottees. Why if such a proceeding were to be tolerated for a single moment there would be no end to it! Any set of swindlers might put out a prospectus, get applications for shares, allot them plentifully, and then abruptly winding up the affair which never had any existence except upon paper, call upon the public to pay any amount in their own, the said projectors', discretion. Railway robberies would then be a more terrible feature of the times, than the highway robberies of former days.

The history of Brighton and Cheltenham Direct abortive scheme presents a remarkable incident, which, if supported, affords matter for alarm to all who have a shilling invested in a railway project. The thing was proposed in the usual way, and partially paid upon; it was then abandoned, those who had paid their money not being allowed the satisfaction of receiving scrip in exchange. An earnest *rédamation*, as the French call it, was raised by the unfortunate payees, who called loudly for the return of their moneys. At first this was resisted *in toto*, but eventually conceded, with a deduction simply of ten shillings per share for "preliminary expenses." This, though a pretty swinging contribution, was agreed to by the subscribers, who were but too happy at the prospect of getting back anything. Two days, however, before the appointed day for refunding, their cheerful hopes were dashed by receipt of the following circular:—

"34, Moorgate Street, Dec. 13, 1845.

"Sir,—It is with much regret I have to inform you that one of the allottees of shares in the above railroad has this day served the directors with notice of his intention of filing a bill against the company to restrain them from parting with the funds in their hands; and that, therefore, the return of the deposits as proposed, until a withdrawal of such notice is procured, is, of necessity, postponed.

"I am, Sir, your obedient servant,

"FREDERICK PENNY, Secretary."

We will not for a moment question the *bona fides* of this communication, nor the sincerity of Mr. Penny's "regret" at the unexpected *contretemps*. Only imagine, however, how such a precedent, if followed by needy and unscrupulous men, might lead to collusion and fraud upon the public. Suppose an abortive scheme in which has been wasted 50 per cent. of the subscribed capital of the allottees. One ill-conditioned allottee determines "to go the whole hog," and to waste the remainder in law expenses; and the rest, including a reluctant solicitor, are bound to submit.

But enough of these examples; they do not illustrate a tithe of the various methods of loss and disappointment to which the good-natured public have been subjected during the late railway mania, nor a hundredth part of what we apprehend they will yet have to submit to. They afford enough evidence, however, of an unwholesome state of things requiring a remedy; and to the nature of that remedy we shall now briefly apply ourselves. It is necessary to the well-being of sound

and *bond fide* railway enterprise, that the public, who are to support and pay for it, should no longer be liable to have their means diverted into delusive channels.

The Act of 1844, "For the Registration, Incorporation, and Regulation of Joint Stock Companies," was passed for the purpose of protecting the public from frauds which had, from time to time, been practised pretty extensively by men of straw under semblance and pretence of being "a company." The registration of the promoters' names, and of the acts and documents of the concern, have cut away a good deal of the ground upon which frauds used to spring up like mushrooms, by giving a remedy against certain ascertained persons. But the Act is still defective in leaving much too wide a latitude of power with companies "provisionally registered," which are in fact not companies at all, not having any responsible directors or officers. The Act only partially applies to railway companies, and in the following observations we shall restrict ourselves to that description of speculation.

Before provisional registration three matters only are *essentially* necessary to be certified at the Registration Office;—namely, "the proposed name of the intended company,"—"the business or purpose of the company," and "the name of its promoters, together with their respective occupations, places of business, (if any,) and places of residence." There may be only one promoter; and, in many cases, there are not more. Moreover, if there are more than one promoter, and amongst them many respectable names, they are only upon equal terms with others about whom they know, perhaps, nothing; they are associated as partners, and as partners can have no remedy, except at equity, against any of their colleagues for the most wholesale and glaring malversation of the funds of the concern. Yet it is to an insecure, irresponsible concern like this, that the Act of Parliament gives power to do the following, amongst other things; to open subscription lists, to allot shares and receive deposits, "by way of earnest thereon," and to "perform such other acts only as are necessary for constituting the company, or for obtaining an Act of Parliament." They are not allowed to receive more than 10s. per 100*l.*, except in the case of railway companies, where they may receive, in addition, the sum necessary to comply with the standing orders, namely, 10*l.* per cent. They are not allowed to make any calls, to purchase or hold lands, nor to "enter into any contracts for any services, except such as are necessarily required for the establishment of the Company," except, in the case of railways, "contracts for services in making surveys and performing all other acts necessary for obtaining an Act of incorporation."

But for the last passage of this clause, promoters of railway companies would have no power to engage in any description of expenditure, except that necessary for establishing the company, as advertising, paying a clerk, and so forth; they would certainly not have the power to engage an engineer, nor probably a solicitor, those wholesale devourers of deposits. It is very doubtful, indeed, in our opinion, whether the plans and sections, though necessary to be deposited towards obtaining an Act of incorporation, are not substantially services towards the construction of the works, and only "necessary for obtaining the Act" in a secondary or incidental manner. If the question were so viewed by the law authorities, the exorbitant charges in which the deposits

upon inchoate schemes, as the Rugby and Derby, and Manchester, and the Great Manchester, have been wasted, could never have occurred, and one great inducement to the concoction of unsound speculative projects would be removed. As long as a wonderfully ingenious engineer and a smart solicitor can "promote" a scheme and receive deposits, out of which to help themselves, *ad libitum*, we must not be astonished if they avail themselves pretty handsomely of the "enterprising spirit of the age."

So much for "provisional registration," which, for any security it affords the subscribers, amounts to nothing. When we come to "complete registration," indeed, the matter assumes a different shape. Before a company can be completely registered, its name, purport, place of business, and amount of capital, must all be defined in a deed signed by at least one-fourth of the subscribers, to the amount of at least one-fourth of the maximum capital proposed to be raised, and the said deed must further contain the names of a trustee, "not less than three directors," and also one or more auditors. The company is then completely registered; and is to all intents and purposes incorporated, with all the powers, and subject to all the securities against malversation, of corporations generally.

Now, the simple remedy that we would apply to the crying evil at present in operation, under the semblance of forming railway companies, may be briefly stated as follows:—

1st. Upon simple "provisional" registration we would allow the very smallest possible power to "promoters" to enter upon expenses to charge the deposits of future subscribers. We would not allow of any engineering or law expenses until "complete" registration, when a responsible direction exists to undertake and control the necessary business of the company.

2ndly. In consideration of the above, we would fix the first deposit on provisional registration at the very lowest possible standard; perhaps even five shillings per cent. would be sufficient for all lawful purposes. The larger deposit to be made only after complete registration, with consent of a general meeting. In a word, the first deposit upon applying for shares should, as the words of the Act say, be viewed simply as "earnest money" of readiness to take shares upon the formation of the company; to be forfeited in case of failure to complete such engagement.

3rdly. There should be some officer, appointed under Government, to whom should be referred all the accounts of promoters of schemes not arriving at complete registration; and the balance upon the first deposit should be rateably returned to those paying them.

4thly. To secure a fair distribution of the shares amongst the public in the first instance, the provisional committee should be bound to register a list of all applicants before the day fixed for the allotment, and of all allottees within forty-eight hours of the allotment taking place.

Taking leave, now, of the evils of the past, and their possible remedies, we proceed to consider the prospects of railways in the ensuing session of Parliament.

A great deal of, in our opinion, groundless apprehension has been expressed upon this subject both by the press and in conversation. There has been a great fear that Parliament would have so much put upon it to do, that it would break down like a common cart-horse from sheer over-

loading. There was also a great fear entertained lest the amount of deposits required by the standing orders should be so large that the shareholders in paying them should leave all the rest of the community destitute of a guinea.

With regard to the latter apprehension, it is almost too absurd to call for serious answer; it being obvious that railway speculators, being only a portion of the community, must feel the pressure for money along with the rest before they could succeed in sweeping up all the specie of the country into the hands of the Accountant-General in Chancery, and that this pressure would compel some of them to desist from their intentions before they had accomplished a complete stagnation of the finances of the country. And this in effect has happened. The money pressure has been felt; so much so, that out of thirty millions of dreaded deposits, probably not more than eight or ten millions will actually be made. For the luckless holders of scrip in the lines unable to raise the funds necessary to bring them into Parliament, as we have already dwelt at some length upon their case, we need only express our sympathy, hoping that some measure for their protection from similar dangers and disappointments in future may be devised before next year.

It would appear, upon first consideration, that what reduces the one evil would also reduce the other; and that the more projects there are which fail of complying with the standing orders, the fewer there can remain to go before Parliament. This may be theoretically correct as far as any purposes of positive legislation goes; but the experience of the past session shows that it is not strictly so in practice; that, in fact, when a man's brains are knocked out he may yet do very well for all parliamentary purposes; in other words, that a project which is not before Parliament substantively as a bill, may yet be entertained as a competing project to oppose a bill in a committee of merits. We have only to express a hope, however, that the House of Commons will in future depart from this grave error, and consider only those schemes which may by possibility be sanctioned in the session. If they should fancy a rival inchoate project to be worthy of consideration as a competing scheme, it would be wiser and better, in our opinion, to postpone the consideration of the whole "group" into which it is introduced.

Upon this subject several gentlemen have published their opinions, with a view of restricting the attention and operations of Parliament in railway matters within feasible and useful limits. Of these, the pamphlet of Mr. Graham Hutchinson, of Glasgow, is the most comprehensive, grappling, as he does, both with blunderers in Parliament, and gamblers in Capel Court. Mr. Hutchinson's main propositions are as follow:—

"1. That all applications for bills to construct branch railways, extension railways, or entirely new railways, which require additional capital to be provided, should be postponed during the ensuing session of Parliament; and that only those railway bills requisite to sanction the amalgamation or the leasing of railways which do not require additional capital to be provided, should be permitted to proceed.

"2. As the amount of capital requisite to carry on the simultaneous construction of even a small proportion of the projected schemes, in addition to the construction of those sanctioned last session of Parliament, is far greater than can be supplied by the gradual increase of spare capital in the hands of individual members of the community;—that her Majesty's ministers, or any board appointed by them, be empowered to divide the schemes, the plans

and sections of which have been duly lodged on or before the 30th November, 1845, into districts, and according as the state of the money-market and other circumstances may warrant, to authorize successively, in subsequent sessions of Parliament, the schemes for supplying such districts as are most in need of railway accommodation to be first proceeded with; and to postpone the schemes for supplying other districts where railway accommodation, or additional railway accommodation, would be less useful, and is less required. And that, on or before the 1st of August of each year, her Majesty's ministers shall cause to be publicly notified what district, or districts, the schemes for supplying which with railway accommodation are to be allowed to be submitted to Parliament, during the then ensuing session, for their examination and sanction.

"3. That a statement of the preliminary expenses in each projected railway be ordered to be immediately made up, and that after deducting such the remaining unspent portion of the deposit-money be immediately returned to the shareholders in exchange for their scrip; that a register of the address of the several owners thereof be retained; and that so soon as it is notified by Government, that bills for supplying the district in which their projected railway is, will be allowed to be submitted to the then ensuing session of Parliament, the owners of that scrip, within a limited advertised time, will be entitled again to take it up, and pay the deposit thereon, in preference to any other applicants.

"4. That no additional schemes for supplying railway accommodation to certain districts, other than those, the plans and sections of which have been duly lodged on or before the 30th of November, 1845, (and which shall be retained,) shall be permitted to be brought forward; and no alteration or modification of such schemes shall be allowed, except by permission of her Majesty's ministers. And farther, that schemes, such as the London and York Railway, the decision of which has been deferred, shall be considered as having undergone so much of their Parliamentary ordeal; and when the other schemes for supplying the same district are allowed to be brought forward, and not till then, shall be permitted to start at that stage of procedure where their Parliamentary examination was broken off last session.

"5. In order to prevent future railway gambling in projected railways,—that original allocations of shares shall not be saleable, or transferable, until an Act for the construction of such railway shall have been obtained, and the scrip exchanged for registered railway certificates, and then shall only be transferable through the instrumentality of a stamped transfer, retained in the office of the railway company, under a penalty of 5*l.*, to be exacted from the seller, for each share previously sold or transferred. And that the collectors and assessors of the income-tax, and other official persons therewith connected, shall be entitled to enforce, and have the same inducement to enforce, such penalties, as they have for enforcing the payment of the income-tax; and in order to enable them to detect transgressors, that they be authorized, at any seasonable time after an Act is obtained for the construction of a railway, to examine the books of the said railway company, and to compare the list of persons to whom shares have been originally allocated with the list that have received railway certificates in exchange for their scrip after the Act has been obtained.

"6. That her Majesty's ministers, by an order in council duly published, be authorized to make any addition to, or modification or alteration of, the preceding suggested enactments, which future circumstances and the course of events may, in their judgment, render necessary or expedient."

In all that relates to the discouragement of gambling, we cordially concur in the views of Mr. Hutchinson; but the controlling authority which he proposes to give to the Government, restrictive of the discretion and powers of Parliament itself, we are distinctly opposed to. It is a new and dangerous principle, which we are convinced the public would never

tolerate, and to sanction it would be a suicidal act on the part of Parliament, which could only be palliated and accounted for by a verdict of "temporary insanity." Moreover, we apprehend, as we have already stated, that there will be no occasion for any such guards against an undue amount of railway enterprise for the future. The pressure of money, the bitter experience of shareholders, and the common sense of Parliament, combined with its habitual disinclination to overburthen itself with work, will eventually provide a remedy, not so speedy perhaps, but certainly more constitutional, more safe, and more permanently efficacious, than any scheme of the kind proposed by Mr. Humphreys.

In addition to the sources of uneasiness which are already attached to railway business from its very nature, under the most favourable circumstances, considerable excitement has been occasioned since the resignation of Sir Robert Peel's cabinet, by the consideration of the possibility of a dissolution of Parliament, and the effect this might have in putting a stop upon all railway legislation for a session at least. Upon this point the Manchester Advertiser makes the following remarks:—

"If a dissolution does take place, then a very important question arises, one which is admitted to be creating mixed emotions in the railway world—exciting on the one hand the fears of those companies which may be classed among the *bonâ fide* and legitimate schemes that will come before Parliament, and had accordingly, at some expense, prepared their plans and sections, and lodged them in due time; while, on the other hand, such companies as have failed to comply with this part of the standing orders, or have lodged their plans and sections in a very defective state, are full of hope: the one class alarmed lest a dissolution of Parliament should follow, and all their notices and deposits be disallowed by the new House of Commons; the other, who had considered themselves out of court, find, in this unexpected event, an unexpected opportunity of mending their faults, and appearing in the committee rooms of Parliament, to the no small delight of their respective solicitors and surveyors, however differently it may be viewed by their helpless shareholders. In some quarters it is believed that neither result will follow, and the reasons alleged are expressed somewhat in the following manner:—It must be remembered that standing orders of either House of Parliament are not the law of the land, but are precautions taken by both Houses for the better fulfilment of their legislative duties. Nothing is easier, then, than for both Houses to reappoint the standing orders of the former Parliament, and to declare all compliances in respect thereof to be good and valid as if made for the Parliament then sitting."

The return of Sir Robert Peel, however, to the head of the Cabinet, and to the leadership of his own Parliament, seems to have removed all ground for this new anxiety, and therefore we need say no more about it.

We presume that the existing Parliament will meet, and will do its duty to railway promoters as well as the rest of the community. We are prepared to believe, however, it must be admitted, that considering the state of the monetary affairs of the country, the state of the labour market, and the state of our foreign relations, which any day may put money market and speculations of all kinds into jeopardy, Parliament will see the propriety of being very chary of granting its sanction to new lines. As a general rule, probably it will only do so in cases where they are necessary to complete lines of communication already partially executed, or larger integral schemes, the importance of which has been acknowledged. Amongst the latter we may include that involving a new direct line

to the north, one for affording more direct communication with the French coast, and one for approximating the metropolis to the Irish capital. In Ireland there are one or two directions in which the application of the advantages of railway communication can hardly be longer deferred; of these we may mention, as of first importance, the great and promising terminus of Galway in the West, the completion of the northern coast route between Dublin and Belfast, and in the south some lines of less considerable length to unite useful lines already sanctioned and in course of construction. In Scotland, the Caledonian Extension project cannot be overlooked.

There will doubtless present themselves, not only in England but in Ireland and in Scotland too, many other schemes, some of local, others pretending to national importance, urgently claiming the attention of the legislature. We apprehend, however, that except in extremely strong cases, Parliament will show a disinclination to encourage them, at least for the present. In other words, as far as possible the mass will be left open for future legislation, affording, of course, full opportunity for new candidates to present themselves in the meantime. It is upon this latter consideration that we urge the more impressively the necessity of doing something to remedy the abuse of inconsiderately or fraudulently projecting, which we complained of in the earlier portion of this article.

But quite independent of individual schemes, there will be some principles relating to railway construction and management which Parliament cannot longer delay to consider and bring to some practical conclusion. The question of the gauges, the adoption or rejection of the atmospheric principle, the principle of direct or deviating lines, the principles of competition and of amalgamation; and, lastly, whether any and what further measures may be necessary for the protection of the rights and lives of the public, now that they have no other means of travelling but by railways; these are subjects which will afford ample food for a session's digestion, and the sooner they are brought fairly to issue, the better for the public and for all engaged in railway investment. Into these matters we shall go more at length in a future article.

Postscript.—Dec. 26th.—Since the above article was in type, we are glad to observe that the market has taken a little turn for the better, particularly in the old parent lines. Some of the better class of scrip have also begun to recover from their late sad depression. We believe that railways will again come in for their fair share of favour as rational business investments; but the allotment and premium mania is for ever at an end.

CONTINENTAL RAILWAYS.

THE extent and energy with which the construction of railways is progressing on the continent, cannot be observed in England without interest; nor ought it to be overlooked in the comprehensive plan of the Railway Register, in which an article devoted to that subject will henceforth appear monthly. We commenced the series, by drawing the attention of our readers in our last two numbers to the six lines in Belgium conceded to *English* companies. As the capital necessary for the construction of these lines amounts to eight millions, and we have good reason to know that all, or nearly all, the shares are held in England, our notices respecting them will, on that account, whenever it is possible, be more detailed than of any others; as we conceive that all information connected with them will be acceptable to the proprietors, and also to the public in general. According to our limits we shall consider it our province also to lay before our readers a summary of the other continental undertakings; this paper will refer principally to those of Central and Northern Europe. We have received, unfortunately at the moment we were going to press, a communication explanatory of the present position of the Central Railway of Spain; in our next number it shall have our best attention, together with the lines of France, Italy, and Russia.

By the *Moniteur Belge* we learn that the Belgian Chambers opened on the 11th of November, and in the sitting of the 13th the Minister of Public Works was called upon by several deputies to offer explanation upon certain points relating to the lines of railway conceded to English companies by the Belgian Government. From the replies made by M. Hoffschmidt to the questions addressed to him, it appears, that some little differences had arisen between the contractors and the directors of the Sambre and Meuse and the West Flanders Companies; but that they were in a fair way to be settled to the satisfaction of all parties. We understand that the Minister of Public Works specially engages to arbitrate in questions of this nature; and, as he has been a director himself, and is well versed in railway business, his intervention cannot but be attended with the best results. M. Hoffschmidt also informed the Chambers, that plans for the first section of the West Flanders lines, from Bruges to Thourout, a distance of 10 miles, had been approved, and that immediately the expropriation of the land had taken place the works would be commenced. As this preliminary measure is to be undertaken by the celebrated Belgian solicitor, M. Allard, who expropriated the land on account of the government, we are sure it will be conducted with the least possible delay. The regulations which the companies are required, by the Belgian law, to observe, certainly *put on the break* for a short space; but we are glad to see by the debate that followed the announcements made by the minister, that he complimented them on the activity they had displayed in sending in their plans, remitting the caution money required by the terms of the conventions, and otherwise conforming to the standing orders published in the *Moniteur Belge* of the 21st of May, 1845.

In the spring of this year, these Anglo-Belgian lines were held in high estimation by the public, as the premium upon their shares proved. But, though intrinsically as good as ever, they suffered depression in the panic which occasioned such universal dismay in the scrip-loving portion of the public; and though relieved from this, we do not see any reason for expecting a return of the former high premiums at present, as the money market will probably remain for some time in an unsettled state; however, if anything can conduce to hasten the re-establishment of foreign railways in public opinion, it will be the activity of their directors in carrying on the works. We imagine no more effectual plan for proving themselves to be in earnest in this object can be devised, than the one recently adopted by the companies of the West Flanders and the Sambre and Meuse, who have appointed Mr. Lewis Cubitt, one of their own directors, to reside in Belgium, for the purpose of superintending the execution of both these lines. As this gentleman was for some time a director of the South Eastern Railway, and is moreover professionally qualified for the task he has undertaken, we anticipate the most beneficial results. It should also be remarked, that Mr. Cubitt being one of the original *concessionnaires* in the West Flanders lines, he is fully acquainted with the subject in all its details. We prognosticated in our last number, that this railway would be the first completed of the Belgian lines conceded to English companies, and we think that the appointment of Mr. Cubitt has not left a doubt that our prophecy will be verified.

THE WEST FLANDERS.

We read in the *Chemin de Fer Belge* of the 2nd of November last, that tenders were to be received at the offices of the company in Bruges, for twenty thousand sleepers for the first section of the line between that town and Thourout, which looks as if a great part of the thousand formalities required by a bureaucratic government had been complied with.

The *arrêté royal*, confirming to this company the power to execute an extension of their line from Dixmude to Furnes, has been published in the *Moniteur Belge* of last month. Furnes is about twelve miles from Dunkirk, and has one of the largest corn markets in the province; its importance, however, will be considerably increased when the line from Calais joins it, which sooner or later must be the case. It will be for the interest of Belgium to advance rather than retard this railway, as she will find out when the Fampoux road is made, and a direct line is opened to Aix-la-Chapelle by Calais. The expropriation of land since the plans were approved has taken place on the West Flanders lines, between Bruges and Thourout, and the contract for the earthworks appeared in the Belgian papers of the 14th of last month. Great goodwill has been manifested on the part of the inhabitants through whose property the line will pass; and as an officer of the Belgian Engineers (*Ponts et Chaussées*) has recently been attached to the staff of this company, we shall be very much disappointed if a portion of the line is not opened in the course of next summer.

NAMUR AND LIEGE.

The Commercial Council of Liege has petitioned the Belgian Government, with a view of inducing it to oblige the contractors for this line to

make the bridges over the Ourthe sufficiently wide to admit of their being available to foot passengers.

DENDRE VALLEY AND CANAL.

The directors have recently made a call for the second instalment upon this undertaking. The shares have in consequence very much depreciated; a call of only two pounds, as in this instance, in the present state of the money market is *mal-à-propos*, though no doubt necessary to enable them to proceed with the works energetically, and therefore delay was difficult, if not impossible.

SAMBRE AND MEUSE.

We have to correct an error, into which we inadvertently fell in our last number, by stating that the cost per mile of this line would be £15,308, it should have been £10,333; the branches were omitted. The Directors held their first General Meeting at the London Tavern, on the 26th of November, which passed off to the satisfaction of the proprietors; the report has been printed, and is to be had at the offices of the Company, 61, Moorgate Street.

One of the last companies that have appeared in the list of Belgian lines, as applicants for a grant, is the Grand Junction, which proposes to make a series of railways that will have the effect of connecting the provinces of Brabant, Hainault, Liege, Limbourg and Namur, and the railways of Government, with one another, also with those of the Namur and Liege, Landen and Hasselt, Louvain and Jemappes, the Sambre and Meuse, and the Great Luxembourg. The project came before the public at a most inauspicious moment—when premiums were scarce things, and foreign lines verging to a discount; we should fear therefore that the directors will find some difficulty in getting their deposits paid. Though the Grand Junction looks, on the map, very much like that very useful culinary article, a *gridiron*, and will therefore, we imagine, be somewhat difficult to work, we hear the project very well spoken of in Belgium, (which is not the case with *all* the lines conceded to English companies,) and, to judge by the proceedings of the directors, they certainly have no doubt of its ultimate success. The Minister of Public Works has already received the caution money, and the provisional committee have informed him that no shares shall be issued until the concession has been granted, and also that they will bear the expenses of the surveys and preliminary arrangements. This is honest and praiseworthy; and we regret that other parties whom we could name did not proceed in a similar manner. These parties have, it is true, cleverly secured their deposits, and upon lines, too, which will never be conceded—of which fact they were fully aware; but they have obtained with them a vast deal of discredit, which must come to light before the end of the Belgian session. If these parties were wise, we should say “a word to the wise;” but, as they are not, we would recommend the shareholders who hold their scrip to be prepared for a considerable reduction when their deposits are returned.

PRUSSIA.

It cannot be matter of surprise that Prussia, jealous of her position in Germany, should evince a disposition not to be backward in her adoption of the railway communication, now almost universally considered as

positively necessary to the prosperity and civilization of every country; we may say with Louis Courier, "*C'est un nouveau monde qui s'efforce de naître.*"

In the month of October last, the following Prussian lines were conceded, viz.: Aachen-Herzogenrath, Gladbach-Dusseldorf, Aachen-Maastricht, Orefeld-Ruzhort. The works on these lines will be commenced immediately, and are likely to be quickly executed; as when they are finished, Aix-la-Chapelle will become a central point of communication from whence will diverge the principal lines to Belgium and France.

The concession of a line from Potsdam to Magdeburg has also been made, and this railway will pass by Brandenburg, Genthin and Berg. The capital of this company has been fixed at four millions of dollars; and when the line is completed a fusion will take place between this company and the one originally formed for the construction of the one from Berlin to Potsdam.

The commissioners appointed to decide upon the plan of a line from Berlin to Königsberg, have made their report, and it states that the direction which ought to be adopted, is from Berlin through Kustrin, Drusen, Schneidemühl, Bromberg, Pelpen, Derschau, Marienburg, Elbing, Preussich-Holland, Mehlsack, Zuisten, and Kreuzburg to Königsberg, when, after going through a tunnel *under the town*, it will come out near the church of Haberberg.

The length of this railway will be ninety-one German miles. It is a line of great importance to Prussia, as the provinces to the east of that kingdom are not likely to have many railroads constructed in them. The Prussian Government is said to be anxious that an English company should undertake the construction of the line from Königsberg to the Russian frontier.

Fourteen miles of the line which will unite the Lower Silesia with the March of Brandenburg, have recently been opened, and its ulterior prospects are among the happiest that are likely to be realized by the proprietors of German railroads; for, when the line of Upper Silesia, and that of Frederick William to Ratisbon and Oder, are opened, and the northern line of the Emperor Ferdinand to the latter town is completed also (which it is expected will be the case next year), the line of Lower Silesia will be continued to Cracow, and thus become one of the most productive on the continent. These expectations appear to be justified by the figure at which the shares keep, as, though paying for the present only 3 per cent, they are at a considerable premium. The works on the Frederick William line are in general carried on rapidly, but there are some works of art that it will require time to complete; one tunnel only which is just commenced, will be 4,100 feet long.

UPPER SILESIA.

The communication between Cracow and Breslau will soon be established. At Myslovitz, where the line leaves the Prussian soil and enters upon that of the free state of Cracow, the foundations of the station are laid, and at the time we are writing, the road is open as far as Königshütte.

A line of railway which has been for some time on the tapis, and which is to unite the city of Coblenz with Hesse, has been agreed upon by Prussia and that duchy. This will be most important for Hesse,

(at which place commences the line from Hassel to Frankfort,) for it is probable that all communication between Germany and the Lower Silesia will go by Hesse to Coblenz, instead of passing by Frankfort and Mayence. This line will in fact prejudice these latter towns, and make a terrible opposition to the steam-boats between Mayence and Coblenz. The king has conceded to companies at Emmerich and Wesel a railway which will join the lines from Cologne to Minden, and Amsterdam to Arnheim—capital 400,000*l*.

The line from Dusseldorf to Cologne was to be opened last month: the stations are described as being very elegantly constructed, and worthy of German taste in architecture. It will soon extend to Duisberg.

AUSTRIA.

The railways now making in this country will enable the English and other tourists who frequent the German watering places, further to gratify their curiosity by visiting the capital of poor devoted Poland. Deeply indeed has the iron entered into her soul, but we would fain hope that that which is now going to be laid upon her soil and bring her into more direct communication with other countries and other people, will in some degree alleviate the captive position in which she has been placed by the Muscovite hordes. Russia does not object to Austrian propinquity, though she does to that of Prussia, and the zeal displayed on the line between Vienna and Warsaw bids fair to place those two capitals within a few hours of each other. On the 27th of June last the first section was opened; it extends from the latter town to Godzisk, and although only serving for pleasure trips, on fête days and Sundays, 30,000 passengers were carried on it in ten weeks. On the 21st of September the line was opened as far as Buda, and the company are pushing on the works with such activity, that before the last year bade us farewell, or we return to the public our first annual acknowledgments for the patronage they have kindly bestowed upon the "Register," this road will be opened as far as Skiernawere by Lowicz. When it is finished thus far the traffic will become considerable both in passengers and merchandize.

HUNGARY.

The same energy has been displayed in Hungary, and the line from Waitzen will, if not already opened, be so immediately; during the month of November workmen were employed on it all night. The line to Rhaab, a town situated on the river of that name, and near the Danube, is also in progress; and we venture to affirm that our wandering countrymen will inevitably patronize it in the ensuing summer if finished, and will even without the assistance of Mr. Murray (whose pioneers they will probably prove) find their road to the land of Tokay; moreover, as we are surprised at nothing in this surprising age—witness the recent fall and return to office of Sir Robert Peel—we think it not improbable that the races of Pesth will one day be as well and numerously attended as those of Paris. The tracing of the line from Bucova-Fiume in Hungary, which is to traverse Croatia and connect the Austrian lines with the Adriatic, is decided upon, and the works are to be commenced this winter.

The line from Vienna to Prague becomes every day more frequented,

and the steady increase in the number of passengers proves that its importance was not overrated; four trains will run between the two capitals next spring. The company are erecting an electric telegraph, and on the extension of the line to Dresden the works proceed with vigour.

SAXONY.

Saxony is making great efforts to complete her principal lines. That of Silesian Saxony, which is to join the one from Warsaw to Cracow, is partly finished, and the portion of it which connects Breslau and Dresden will probably be opened in 1847. Active preparations are making in the Saxon-Bohemian line, which will unite Dresden with Prague, and also the Saxon-Bavarian, which is completed as far as Zurichhau. The former will be made by the state. There was a project for continuing the last-mentioned railway through Thuringia to the Rhine, but Prussia having started some objections to that line, it is supposed that the prolongation will be carried by the valley of the Neva to Frankfort instead. The benefit which will accrue to Leipzig and Dresden by these lines is incalculable.

HANOVER.

The German papers state that English engineers and capitalists are now at Hanover, with the view of obtaining lines on the atmospheric plan, and are making experiments there on their own account. We are glad to learn this, for as the principle is the best that has yet been invented for railways, we feel convinced that, eventually, the adoption of the system must be general; and we advise the company who have purchased Monsieur Hallette's patent to be on the *qui vive* whenever and wherever experiments with a view of testing its efficiency are going on. The adoption of a system varying from that which has, by competent authority, been pronounced to be the best, and yet preserving a resemblance to it, will inevitably tend to draw discredit upon the one patented, and to depreciate its superior capabilities in the opinion of the public.

The railroad called the Kreuzbahn, between Hanover and Celle, was opened on the 15th of November. This is an important line, opening as it does a direct communication between the towns of Harburg, Hamburg, and Berlin. The portion from Hanover to Harburg is open, and the works are rapidly progressing on that between Hanover and Bremen. It is, indeed, evident that the Government of Hanover is now throwing aside its prejudices against the encouragement of railway enterprise, for it has lately been determined that a line shall be made at the expense of the state from Bund-Mille and Osnabruck to the frontiers of Holland.

BAVARIA.

The concession of a line between Ludwigshafen and Worms has been granted to a company, who will at some future time connect it with the one from Mayence to Dusseldorf. The Government has reserved the right to buy it of the proprietors in twenty years, at the premium it may then be at. A plan of a railway which is to go round the town of Munich, and intersect it in several directions, has been submitted to the Bavarian authorities; the projector is a Lieut. Steinle—the length is

45,000 feet—capital required £400,000. It is thought that the streets of Munich being very wide the project will be adopted.

FRANKFORT-ON-THE-MAINE.

The line of the Main-Neckar will be opened in April next. This road will run from Frankfort to Verdberg, and the two states through which it will pass have agreed to pay interest upon the capital after the day fixed for the completion of the line. The ground has been broken on the road between Frankfort and Hanau. The line from Nached to Soder, conceded to the company Bethman, of Frankfort, will be open in June, 1846. A company has applied to the Senate of Frankfort for permission to construct a line which is to unite Nurnberg with the great line of the Main Weser. This latter is progressing rapidly, and the ground for the station at Frankfort has just been purchased for 700,000 francs. Lines have also been conceded from Frankfort to Homberg; and from Lubeck to Schwerin.

WURTEMBERG.

The Government of Wurtemberg, the only state in Germany in which there is no complete line of railway yet in operation, appears undecided as to what course it will adopt; at any rate the authorities are in no great hurry to enter into arrangements with English capitalists. The propositions made by several companies were not well received at Stuttgart. The Chambers did, it is true, vote the Government permission to adjudicate lines to private individuals; but the public opinion, as well as that of a great portion of the press, was so much against the measure, that the overtures were finally rejected. A portion of the state line from Constadt to Unturkheim was opened in October last, when the king and the Minister of Finance made two trips upon it. The concourse of spectators was very great, this being the first locomotive that the phlegmatic Wurtembergers had seen; they were so greatly overcome that they actually raised a shout, not of greeting to the royal party, but of utter amazement at the train as it went fizzing by. We were present in India some years since when the Enterprize, the first steamboat from England, made its appearance on the Hoogly, and, to the astonishment of thousands of natives who lined the banks, passed up the river against a strong tide and head wind. Could they have seen her off the Cape in a north-west gale, what would, or would not, the sable spectators have thought? And if a party of heavy, smoking Wurtembergers could make a trip to Bristol with Mr. Brunel, what would, or would not, be *their* sensations?

They have, however, set up their only line (which is now open to Esslingen) most handsomely. There are three classes of carriages; those of the first class are described as luxuriously furnished, with sofas and tables; and as there is a passage through them, persons going in and out do not incommode the travellers who remain; like the carriages on the Belgian lines, they are entered by steps.

Amongst the many improvements of all descriptions, commercial, national, or domestic, which the sanguine anticipate will be the result of the general adoption of railway communication, we should exceedingly rejoice to see it effect an abatement in one of the inveterate habits of the German nation; for we recollect, and with none of the "*Pleasures of*

Memory" attached to the *souvenir*, having been shut up in an *eile wagen* with five of these good Deutschmen and their five—wives, of course, the reader supposes—no, their five *meerschaums*, the external air being carefully excluded. Our hand-book, just fresh from Mr. Murray's, did not recover from the taint till it reached our fire-side in the county of ——. For ourselves, we almost despair, knowing the tenacity with which people cling to national customs, of ever getting rid of the abomination; and yet surely the Herrnschaft will not permit themselves thus to defile their elegant first-class carriages.

HOLLAND.

The Town Council of Zutphen have decided upon gratuitously providing the land upon which the stations of the Overysseel Railway are to be erected.

SWEDEN.

The Swedish papers inform us that this land of rocks, lakes, and iron, will soon be traversed by railways, and that they will be granted to English companies. The first line spoken of will go from Stockholm by Gefle, Westeras, and Nykoping. The negotiations with the Government for carrying out these undertakings, have been entrusted to Count R—, a very intelligent officer of the Engineer Department of the Swedish Navy, long resident in England, who has conducted them to a very favourable termination.

DENMARK.

Strange as it may seem, the Government of this country exhibits a strong *anti-railway* spirit, having refused to concede the line from Lubeck to Buchin by Mollen, on the ground that it is not of public utility! It has also thrown various impediments in the way of that from Altona to Kiel, by interfering with the internal economy and arrangements of the company. The railway in Notstein, from Redensburg to Neumunster, which was opened in September last, will cause a considerable increase in the traffic on the above line. It was completed in five months.

GREECE.

English engineers are said to be chaining and levelling on the site of the "long walls," between Athens and the Piræus, preparatory to their company demanding of Otho the First, (and, as far as appearances go, the last,) the concession of a railway from the port to his capital. We certainly hope the execution of this line will not be delayed till the Greek Kalends, for we have a vivid recollection of having thought, when we were last in Attica, that this short drive presented a very fine opening for an establishment of Richmond Busses, or some such vulgar convenience. Six years ago we could not venture to hope for a railway in Greece! The vehicle in which we were conveyed to the city, was one mortal hour doing the five miles; the phaeton breathing odours far more disagreeable than those of a locomotive; the dust flying about in gritty clouds, and much more annoying than an occasional whiff from the chimney. The heat, too, in the month of June, made us feel that the Peripatetics of the adjoining grove must have had warm work of it in their day; and, to crown all these discomforts, there was actually a half-

way house—and of course the driver stopped at it—the Argos, or it may have been the Compasses, we do not remember which; though deeply graven on the tablet of memory are the bad pace, the bad road, the crazy vehicle, the dust, the high-scented coachman and his blue breeches, the vile *cabaret*, and the rosined wine—we remember all—and accordingly pray heartily for the success of this classical line.

GREAT NORTH OF INDIA RAILWAY*.

WE have in our previous numbers alluded to the several railway companies that have projected lines for India; we now speak of the Great North of India Railway Company, which we find by a recent advertisement is in a position to make speedily the allotment of their shares, and to send one of their directors to India to carry out the preliminary objects in that country.

It has been objected to this company by the East India Railway Company—that they have improperly interfered with the line they had laid before the public in their prospectus; but we do not think that this charge is quite made out. The East India Railway Company certainly did, by its prospectus, intimate its intention to make a line from Calcutta to Feroozpore, with branches to other places, of the length in all of somewhere about 1500 miles! Subsequently, however, they raised four millions of capital, which they said was for the purpose of a railway from Calcutta to Mirzapore; and they declared their intention† of confining themselves to this experimental line, in the first instance—when, if it succeeded, they might possibly commence further operations. It is very clear that this was a safe and cautious course for this company to take—but for the inhabitants who dwelt between Mirzapore and the Indus it was a virtual annihilation of their hopes. Railway companies in England have never, under the most favourable circumstances, been able to complete, within the year, more than fifty miles of railway; and if we take this as a fair criterion of what may possibly be done in India, the line to Mirzapore would take *eight years* to complete it, being a distance of about 400 miles; then, and not till then, the East India Railway Company intended to extend their line, contingent, however, on the experimental line being found to pay. The caution with which the directors of this company proposed to commence their proceedings shows at once the impropriety of giving to one company the construction of such an enormous extent of railway as would take a lifetime to complete it in.

Had the upper provinces of Bengal been entirely without resources, this dilatory course of proceeding might have been the only feasible

* This railway will connect Allahabad, Cawnpore, Agra, Feroozabad, Delhi, Meerut and intermediate places, the high military roads of the country presenting the route that will probably be adopted; but the precise course of the lines cannot be defined till the decision of the Indian Government shall be made known.

† Vide Mr. Stephenson's pamphlet, pp. 7 and 17.

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one; but it happens to be otherwise—the two provinces of Oude and Allahabad, through which this road was to pass, are famed for their fertility, and for the wealth and enterprize of its native population; it was not therefore likely that they would long remain inactive, and acquiesce in the terms which the East India Railway Company chose to dictate, but that, aided by the capitalists of England, they would enter the field with a line of their own. Such has proved to be the case; and when it was found that the East India Railway stopped at Mirzapoor, the Great North of India was registered for the purpose of constructing one from Allahabad to Delhi; and on the just principle of the division of labour, we hope to see the attempt to monopolize the whole of this extensive line by one company*, frustrated by the good sense of the Court of Directors and the Indian Government; and that one company will be confined to the line from Calcutta to Mirzapoor, another to the one from thence to Delhi, and that a third will get the line from Delhi to the Indus. Surely a line as long as from London to Edinburgh is enough for any one company at one time; and the formation of the branches that will naturally diverge from their trunk line, will give each company enough to work upon for many future years. That this will be the wise determination of the Indian Government we are quite sure; and we hope the rival companies in India will soon see that it is not their interest to oppose each other needlessly, but rather to unite, under separate and distinct boards of management, for the purpose of simultaneous operations in different parts,—and thus to confer a benefit upon India the extent of which is absolutely incalculable.

It has been said, and with justice, that if the British dominion over India were now to see its termination, that nothing would be left behind to bear evidence of a sovereignty that had existed for nearly a century, no monument remain to perpetuate the memory of the English, the successors of the Moguls. This we must confess is a sad reproach, when we consider the countless millions of treasure that have flowed into this country from that fertile land. If, however, we succeed in establishing a perfect system of railway communication throughout that country, we shall have wiped away this stigma—and then, come our fall when it may, these iron roads will remain to attest the extent of our intelligence and our power—and the consequent civilization and improvement of the country will be the undying glory of our sway.

In reference to this part of the subject, we wish to say a few words to those who are interested in the conversion of the natives of India to Christianity.

In Europe and in America, wherever railways have made their appearance, the object has been simply to facilitate the communication from one place to another; and this object has been sufficient to cause their construction in all directions. In Asia, however, in addition to this object, there exists another of the greatest value, to which attention has not yet been sufficiently directed. Every one who carefully considers the effect that communication by railway is destined to have upon India, in softening the asperities of *caste*, will not fail to see that the frequent contact with their neighbours of all descriptions which the railway causes, will eventually end in the destruction of those religious

* Vide Mr. Stephenson's pamphlet, p. 12.

prejudices which have hitherto been the great stumbling-block in our intercourse with the Hindoo.

Who would have believed that in the short space of time since railways were introduced into the different countries of the continent of Europe, that the system of passports would have yielded to the quiet, persevering influence of the railway system, without one word of remonstrance upon the subject? One system has been found incompatible with the other, and the weaker has quietly given way. In the Rhenish provinces of France and Prussia, where railroads exist, it has been found necessary to modify the rigour with which passports were formerly examined; and in Belgium, from the increase of railroad travelling, they have been found to be impracticable, and therefore have been wisely abandoned altogether. To the same silent, constant, and persevering influence do we look for the eventual destruction of caste in India. It will not be accomplished by the arguments of the learned, directed to the understanding of the people, for that has already been tried, and has failed; but we fear not to predict, that after railways shall have been organized in India, and the population accustomed to their use, the day will not be far distant when these prejudices will be so much weakened that the hideous fabric of Hindoo worship will voluntarily begin to crumble, and gradually fall to pieces, without an effort made on one side for its destruction, or a struggle on the other for its preservation.

But to return to the Great North of India Company. The line they have projected passes through a country as level as Belgium, and twice as fruitful—teeming with population—abounding in wealth—where the utility of railways is already duly appreciated, and their formation loudly called for. We have recently heard of one native merchant, who stated his readiness to invest a capital of 200,000*l.* in such undertakings, so satisfied was he of their importance and value to the commerce of his country—others will not be slow to follow his example, and there is no doubt of the natives making railways a favourite investment. The establishment of steam-boats on the Ganges has already accustomed them to locomotion by steam; and the vicinity of such places as Benares, Allahabad, Cawnpoor, Lucknow, Beelah, Futtyghur, Burtpoor, Mattra, Delhi and Meerut, give promise of a considerable passenger traffic;—the produce of the Doosab, and other districts in its neighbourhood, famed for their fertility, in the production of cotton, sugar, rice, indigo, opium, tobacco, &c.*, and that of the factories, may justly be expected to pass along the railway, in order to avoid the great delays of water carriage, to prevent the deterioration of property, which is always more or less

* On the road between Allahabad and Cawnpoor, the traffic for one year was as follows:—

107,613 carts.

172,377 camels, bullocks, &c. (laden with goods).

63,720 coolies, (porters carrying goods).

38,619 carriages.

122,751 horses, camels, &c. carrying travellers.

266,052 travellers on foot.

In 1842, the quantity of sugar that passed in *six* months was 64,507 tons.

In the adjoining provinces there are 18 millions of acres under cultivation—of which 577,035 acres produce sugar. 16,570,000*l.* in produce is annually received from or is conveyed to the interior.—Vide Stephenson's pamphlet, pp. 16 and 17.

injured by the water, and to save the charge of insurance, which is very heavy. The cost of construction of a railway through this part of India, in consequence of the flatness of its surface, the cheapness of labour, and the abundance of wood and iron, which can be brought by the Ganges to every part of their line, may be taken as low as the average of cost of the Belgian railways—which is somewhere about 3,000*l.* a mile—rather less than more. These circumstances, therefore, all considered—we do not hesitate to say that we think this railroad possesses all the elements of success, and requires only good management in its directors to ensure it.

We understand the line is proposed to be laid down as follows:—first, to complete a junction between Allahabad and Cawnpore, a distance of about seventy-five miles. This part in operation, the project will be continued direct to Delhi, throwing off branches to Futtigur and Agra in its progress, and also connecting Delhi with Meerut.

THE MADRAS RAILWAY.

We are happy to hear that accounts of a most favourable character have reached this country of the reception of the prospectus of this company in the Madras Presidency, and that the most influential parties, including the Marquess of Tweeddale, have given it their sanction and support. The line, it will be recollected, was warmly supported by his Lordship's predecessor, Lord Elphinstone, when it was first surveyed; but owing to some differences of opinion in the Council, its progress was stopped for the moment. Since then, as will be seen by the correspondence which we subjoin, the improved road from Madras to Wallajahnunggur, in conjunction with and along the line of which it was proposed to lay down the railroad, has been completed, and has led to the most valuable results in the increase of traffic which has taken place in the district. It is a gratifying fact, and one which gives the best earnest of the successful prosecution of the work, and of its eventual value as a means of civilization and a source of profit, that it has been most favourably taken up by the local population. Mr. Thomson, the president of the Madras Chamber of Commerce, in a letter to the chairman of the company, under date the 23d September, 1845, writes, "The local feeling in favour of the project which your company has in view, seems to be very favourable to it; and affords every reason to expect that the shares allotted to India will soon be taken up." Another letter from the same to the same, gives the following interesting particulars:—

"I believe that your company will meet with cordial support in this presidency, and if a railway will pay anywhere in India, it should pay on the line which you have taken up. Within the last few years, since the new road has been constructed, there has been a great increase of traffic; but even with the increased facilities which the new road affords, the means of conveyance are short of the wants of commerce, and the greatest inconvenience has this year been experienced from the difficulty of pro-

curing bandies. Mr. Norton, I believe, estimates the trade in salt at 4,700 garci, or about 19,000 tons, but I cannot speak as to the correctness of this estimate. However, some idea may be formed of the importance of the line by the fact, that it leads into the very heart of our principal sugar district, and that within the last two years there has arisen a trade in the article from the Chittoor district, and which would all come by the railway, of not less than 5,000 tons, and we may expect that in time this will greatly increase. Captain Worster tells us that he estimates not less than 700 bandies come in daily to Madras by the new road as an average, and this is equal to about 300 tons per day of imports, exclusive of exports. If the reality amounts to even one half of this it is great. To ascertain the precise traffic, the only correct means would be to station men on the road at different points to take down daily the bandies that pass to and fro. This has been done by Worster and by Captain Cotton, also, I believe; but I am not aware whether it has been done with that accuracy and for a sufficient time to enable one to draw correct conclusions. It would, I think, be worth while to do this again for three or four months, not in succession, but every third or fourth month, which would give a pretty close approximation to the averages. My own impression is that there will be a fair return from native passengers in time, if the passage-money is only kept sufficiently low to come within their means, and accommodation afforded so as to meet their peculiar and sensitive feelings as regards the female portion of their families. There will be a great saving in the expense of railways in this country as compared with those in England in the two items of *land* and stations, which at home form a proportion of thirty per cent. to the whole cost; and, besides, the same speed is not necessary here, and twelve miles per hour would answer every purpose required. Lieutenant Collyer has drawn up an estimate for the Wallajahnuggur line, and has taken a great deal of trouble in collecting his data. He estimates the construction of a single line at 10,19,000 *R.*, and with contingencies, such as engines, buildings, &c., at rather under 12 lacs. He, however, thinks that teak sleepers may be depended upon, and calculates the speed at about ten miles per hour. His calculations shall be made available to the committee, which I believe Mr. Norton is organizing in accordance with the views expressed in your letter to the chamber. He seemed to us the best person in the lists sent by you to whom to commit the interests of the company.

“Believe me, yours sincerely,
“J. THOMSON.

“J. A. Arbuthnot, Esq.”

The Committee to co-operate in the presidency with the Company in London was readily formed, and Mr. Walter Elliot, who was appointed secretary to it, writes the following account of its earliest proceedings:—

“Our first act was to take steps for the delivery of the letter addressed by you to this Government. The deputation of the committee selected for the purpose met with the most cordial reception from the Marquess of Tweeddale, who not only expressed his own favourable wishes for the success of the undertaking, but offered various suggestions for promoting a readier communication between the constituted authorities and the Committee, and stated his readiness to afford them every assistance in his power. We accordingly resolved to address the Government, requesting to be furnished with all the information in the public records relating to the survey of the line of road between Madras and Wallajahnuggur by Captain Worster, and also with any information on the subject of railroads generally. Likewise that orders should be given to the local officers in charge of the country through which the line is to pass, to communicate with and afford to the Committee such information as they may require.”

This gentleman then adds, that a sub-committee has been appointed to report upon the voluminous documents which might be expected to come into their hands; and that the prospectus had been generally issued. The deposit upon shares in the first instance is fixed at twelve rupees, about twenty-four shillings per share. Mr. Elliot concludes thus :—

“I trust these steps will serve to show the home Committee that we have taken up the matter in earnest, and that we are zealously bent on furthering to the utmost of our power, a project so well calculated to develop the resources and promote the improvement of Southern India.”

The following article, extracted from a recent number of the *Madras Spectator*, gives a good idea of the earlier history of this important project, and of the estimation in which it is held by men of experience in the presidency :—

“Long before Mr. Macdonald Stephenson commenced his laudable movement on behalf of Bengal, the desirableness of railway intercommunication, and its peculiar adaptability to the natural and commercial circumstances of our presidency, had been pointed out and acknowledged by competent parties at Madras. It is not therefore on a dubious or an unknown field of enterprise, that speculation proposes now to make its venture. The most material facts necessary to a right estimate of the first outlay and probable returns of that line which best deserves attention, have been already drawn together, and should an English company determine on carrying out the plans for whose support those data were accumulated, but little more, we imagine, than a partial verification of them would be needed, preliminary to the commencement of the work. Judging from what we have above written, our readers will find no difficulty in discovering the line of road at which we point; since none other than that between Madras and Wallajah-nuggur presents the immediate facilities and recommendations insisted on. Situated within a short distance (some seventy miles) of the coast capital, and forming as it does a chief depôt for the produce of several districts while in transitu thither—the intermediate country being moreover a dead level the whole way, and therefore entailing no necessity for laborious tunnelings or cuttings,—Wallajahnuggur is perhaps *prima facie* the very best spot that could be selected for the terminus of an experimental railway; and when to these advantages we further add the collateral considerations before mentioned, viz., that a survey of the line has been already made, and the necessary statistical calculations entered into, it will at once appear that no project of the kind at this presidency could offer to capitalists an appearance so encouraging.

“With reference to what took place on the subject during Lord Elphinstone’s government, we may observe that the engineers’ estimates for the construction of the Wallajahnuggur Railway underwent a searching examination at the hands of another authority here; who, taking into account the cost of stone sleepers, and including various matters not fully allowed for by the original estimator, yet calculated the requisite expenditure at a rate no higher than that of one thousand pounds per mile! * The same party having also laboriously calculated from public data the present cost of carriage on bulky articles, and formed an estimate of the whole probable expenses of the railroad traffic, was brought to a conclusion that a net profit of between ten and twenty per cent. would be realized on the Wallajahnuggur line from salt alone! His estimate on the enhanced price of that article at the above station, as contrasted with the Government monopoly price at the coast, (and by which the profit on outlay arising from the comparative

* 300*l.* per mile is the estimated cost for the Bengal Railway.—E. M. S.

cheapness of railway carriage was calculated), were derived, we believe, from an elaborate statement drawn up by Mr. D. Elliot, and submitted to the consideration of Government by the Revenue Board. Pursuing his investigations, the gentleman to whom we allude became satisfied of the feasibility and ultimate expedience of carrying on the railroad through the southern districts ; so as to render it the great channel for conducting their produce to the capital, and eventually to open up new sources of traffic, by connecting sea with sea, or, in other words, Madras with Calicut.

"This was certainly a noble project, and one which, although not perhaps in our own generation, will most assuredly be accomplished ; for so copious are the interior products of cotton, sugar, indigo, rice, &c., all of which must find carriage of some sort to the coast, that a judiciously chosen, fittingly constructed, and well governed line of railway, would amass such an amount of traffic as could not fail to render it a most lucrative speculation to the undertakers. Meanwhile, however, we must content ourselves with advocating, as an initiative step, the formation of the less magnificent and more easily effected Wallajahnuggur line. To this, in the event of a company being associated on behalf of our presidency, immediate attention will no doubt be drawn ; and as it is the duty of the press to lend its utmost aid for the advancement of a scheme so fraught with benefit, both to those who govern and them that obey, no effort shall be henceforth wanting on our part to obtain such further information as may aid in elucidating the subject, and securing for it, both here and in England, the requisite amount of public favour."

The writer of the above article refers to some calculations made by a high official person upon the cost of traffic under existing circumstances in the Madras presidency ; and the comparative cost of transit upon the railway system. The results of these calculations are extremely curious, and quite convincing in favour of the claims of steam power ; and we have great pleasure in laying the following statement of those results before our readers:—

"In the Report of a Committee, dated March 1838, that had been appointed by the Madras Government to investigate as to the expenditure and capabilities of a railway and canal that had been constructed for the conveyance of road material from the Red Hills for the roads about Madras, the following paragraph occurs, from which some idea may be formed as to the emolument likely to be derived from the conveyance of heavy goods by a railway on a more extensive scale.

"Para. 60.—But perhaps the greatest obstacle of all with which the railroad has had to contend is the high degree of economy prevailing in the supply of road materials on the old plan, under which a heavy cart load of material weighing about 1,000 lbs. is conveyed more than 7 miles for 7 *anas*, the regulated hire for a cart from Madras to the Red Hill being *R.1. 2a. 8p.* to convey 720 lbs. only ; but this supposes a distance of 10 miles, whereas the average distance of bringing the material but slightly exceeds 7 miles ; still the discrepancy between 7 and 18 *anas* remains in force, owing to the relative weights carried."

"From the above it will be seen, that notwithstanding the greatest possible reduction had been effected in the conveyance of road materials consequent on severe competition, yet a cart load, weighing 1,000 lbs. only cost 1 *ana*, or 1½*d.* per mile. But a ton of like material or other goods weighing 2,240 lbs. would, at the late reduced rates on the London and Birmingham Railway, be carried for 1½*d.* per mile, or one third of the cost by cartage at Madras taken at the lowest contract price. This is the only competition with which railroads to the interior on the Madras Railway would have to contend.

"The hire of 24 coolies or porters, required to carry 36 dozen quart bottles of any liquid, or articles weighing 2,160 lbs., from Madras to Arcot,

73 miles, would be *R*.37 12*a*. 0*p*., or 3*l*. 9*s*. 6*d*., whilst the carriage of the same quantity by 3 bandies or carts, would be *R*.21, or 1*l*. 18*s*. But by the new rates on the London and Birmingham Railway, a ton weight in bottle, or 2,240 lbs., would be carried the same distance for 12*s*. 6*d*. But suppose the Madras rates as above were reduced by one-third, in consequence of the construction of a railway, the charge for conveyance of a ton of such article from Madras to Arcot would be as follows: by coolies 2*l*. 6*s*. 8*d*.; by carts 1*l*. 5*s*. 11*d*.; and by the London and Birmingham rate 12*s*. 6*d*., as before; which would allow a wide margin for toll charges by the intended railway, and this too after making an allowance for competition.

"It has been stated, and generally believed, that the chief source of income likely to be derived from railroads in India would arise from the conveyance of merchandize. Such was the opinion first entertained on the construction of the Liverpool and Manchester Railway; but it was soon found that passenger traffic was the most lucrative; and although a like result could not be expected from railroads in India, at least for a very considerable time, yet the income likely to be derived from this source has probably been undervalued, for the inducements to travel by railway are so great as to economy, despatch, and comfort, that great numbers would, in time, be found to avail themselves of it. Two or three instances as to the great difference of expense between the usual mode of travelling in India and by railway may be given. The hire of a set of palankeen bearers (laying aside the expense of palankeen) from Madras to Bangalore—207 miles—costs not less than 65 rupees, or 6*l*. 10*s*., whilst the distance from London to Birmingham—112 miles—is completed by the common train, in five hours, for 1*l*. 3*s*., and in a second-class carriage for 17*s*. The journey to Bangalore would occupy a week with one set of bearers. Travelling with posted bearers is quicker, but more expensive, than employing one set only. The saving of expense to a first-class passenger would not end here by the establishment of railroads, for his servants, baggage, and horses would also be carried at a very cheap rate. But one great object for constructing railroads in India would be accommodating second and third-class passengers. The latter are now carried on all railways in England for 1*d*. per mile, and yield a profit. The expense for the construction of fifty-two principal railways in England averaged upwards of 31,000*l*. per mile. But there is reason to believe that a third of that sum, or 10,000*l*. per mile, would be an ample average allowance for the construction of railroads throughout India. Should this be the case, a third-class passenger might be carried for one halfpenny, or 4 pice, per mile; so that the charge from Madras to Arcot—73 miles—would be 1 rupee 8 anas 4 pice, or 3*s*. 0½*d*., and to Bangalore—207 miles—4 rupees 5 anas, or 8*s*. 7½*d*. Such charges as these would, in all probability, induce many travellers to go by rail who adopt any other means of movement than their own legs, as well as many of those who do. It may not be out of the way to observe, that as time and labour are more valuable under the Madras presidency than in Bengal, the people are better able to pay for railway accommodation in the former than in the latter presidency.

"In the absence of traffic returns, these details, short though they are, may not be without interest, as tending to prove that a railway to Arcot or Bangalore would successfully compete with the ordinary modes of conveyance at Madras, provided the amount of traffic be found sufficient to warrant the construction of a line to either of these places."^a

^a The following memoranda may be useful as guide-notes to the above observations:—

A garci is a measure, at Madras, weighing 10,000 lbs. A bandy, or cart, at Madras, drawn by two bullocks, will take 1,000 lbs. of goods. The regulated hire for a bandy load (called 720 lbs.) is 1 rupee (2*s*.) for ten miles. Bandies, or carts, may, however, be hired by private bargain for less than half the regulation price; that is, to carry 1,000 lbs. for ten miles for about one shilling; or about a ton for 27 pence for 10 miles; or 2 pence 3 farthings per ton per mile.

METROPOLITAN IMPROVEMENTS.—No. III.

Embankment of the Thames.—Public Terrace and Railway Junction Street.—Thames Cemeteries.—Grand Eastern and Western Cemeteries Association.—Monuments to the Great.—Surrey, London, and Metropolitan Railway Junction Companies. — Birmingham and Metropolis Docks Terminus.

BEFORE entering into specific plans, it was important to open generally the subject of metropolitan improvements, to consider them both present and prospectively, with a view both to the existing and future exigencies of a great city, destined in all probability not only to a rapid expansion of its local boundaries, but an almost inconceivable increase in its numbers, opulence and structural grandeur. It was necessary to do this, too, with a full prescience of the locomotive and mechanical agencies the age has mastered, with the not unreasonable anticipation that their uses may be still further extended and multiplied.

Poleonomy, or the laying out of towns on the Birkenhead principle, with a regard to the health, comfort and convenience of their inhabitants, is a new science that has never been systematically studied, or obtained the public attention, to which it is entitled by its vital utilities; but it is certain the time is near when townspeople need not, nor is it likely they will, continue to lead the caged-up and half developed existence they have heretofore done. Allusions to these topics, and endeavours to impress their primary consideration on projectors, have formed the main staple of our two preceding articles; but having discharged this general duty, we shall next separately consider the various schemes that have been submitted of local improvement, commencing with that which appears to be the most novel and striking, the

EMBANKMENT OF THE THAMES, WITH A RAILWAY JUNCTION.

For a first and right impression of the urgent claims of this undertaking, a stranger cannot do better than place himself over the middle arch of Waterloo Bridge—time, near the lowest ebb of a neap-tide. He will thence see, by extending his eye upward and downward, the bed of the river, a spectacle in many respects not agreeable to contemplate; but that with which he will be most grieved, if he has any public spirit within, will be to witness the palpable waste of water and waste of site. The meandering and now almost fordable stream beneath him is chiefly valuable in traffic for its alternate tidal flow; but these advantages, he will remark, are needlessly and immensely circumscribed, in all states of the tide short of high water, by innumerable shallows and sandbanks, that from Kingston to the “Old Shades” impede the navigation of the Thames. For lessening, if not entirely obviating these obstructions, it is obviously only necessary to contract the bed of the river, by which its channel would be deepened, its propulsive force to and fro augmented, and a wide margin of dry land obtained for buildings, viaduct, public promenade, or whatever else of use or ornament such a valuable and eligible reclamation of shore might be esteemed fit and convertible.

An undertaking not precisely of this description, but embracing perhaps more feasible and profitable aims, has been put forth by the "Thames Embankment and Railway Junction Company." The possibility of an embankment of a portion of the river was started twenty years since by Colonel Trench, and is now brought forward under auspices that bid fair to give the first crude conception positive relief and existence. In the scheme propounded two leading features have been embraced; *first*, the erection of an embankment on the north shore of the Thames, extending from Hungerford Market to Blackfriars Bridge, by which a solid longitudinal platform would be raised, affording an elevated mound for a noble public terrace along the river, and for a carriage and foot-way, that would open greater facilities for business and transit than the narrow and crowded thoroughfares which now form the only communication between the west and east ends of the metropolis. This part of the design will be readily understood from the map prepared by Mr. Page, the able engineer of the projected work, and which we hope to be able to insert in our February number.

At this point the design might pause, and when practically carried out, a great public work held to be completed. But, in connexion with the embankment, it is intended to open a railway street, which forms the *second* feature of the plan, upon the atmospheric principle, from the east or Blackfriars end of the embankment to the vicinity of London Bridge, the Bank and Royal Exchange, and thence to the Blackwall Railway; throwing off branches from this junction line over Southwark Bridge, or a new railway bridge, so as to communicate with the Brighton, Croydon, South Eastern, and other lines on the Surrey side of the Thames.

Such is the general outline of the scheme, whose advantages may be thus recapitulated;—1. A river-side terrace, equally striking in appearance and utility, affording a spacious drive and promenade available for the purposes of either business or health and recreation, will be obtained for the public; while the most crowded thoroughfares of the city will be relieved from a part of the vast traffic which obstructs them, and by the adoption of the improved mode of railway transit, free from noise, smoke, and danger.—2. The improvement of the navigation of the river, and of the metropolitan sewerage, by the removal from the north shore of the unsightly and unwholesome accumulations of mud that now impede and disfigure it.—3. A rapid and uninterrupted line of communication will be opened between the centre of London and the southern and eastern parts of the kingdom.

An estimate has been formed of the traffic between the west end and the city, but the provisional directors, to avoid exaggeration, have contented themselves with submitting the subjoined general calculation, which imports an ample return for the capital required.

ESTIMATE OF THE TRAFFIC BETWEEN THE CITY AND WEST END.				
Steamers averaging 370 trips per day	-	-	16,000	Passengers.
Omnibuses, ditto 2,120 journeys per day	-	-	20,000	ditto.
Cabs and Private Carriages, ditto 6,588	-	-	13,000	ditto.
			49,000	ditto.
Foot Passengers, ditto	-	-	76,000	ditto.
				125,000 Persons daily.
				D 2

If one-third only of the Passengers by Steamers and Carriages use the Railway	- - -	16,300
And one-eighth of the Foot Passengers	- - -	9,500
And of those travelling to and fro from the different Railways connected with the Blackwall and the London Bridge Termini	- - -	12,200
The aggregate would be	-	38,000

Assuming that the improved mode of transit will increase the number of passengers about one-third (the usual calculation being *double*), the daily number will be 50,000.

An average of 3*d.* would give £625 per day, or £228,125 per annum.
And deducting for expenses - - - 57,000

There would remain - £171,125

or about *nine per cent.* upon the capital of the company. Admitting the correctness of the data, nobody can reasonably doubt this return who considers the multitudes continually passing and repassing to and from the city on foot, in omnibuses and other carriages, and in steam-boats, and without reckoning the largely increased traffic that must accrue by the junction with the eastern and southern railways, and their many projected extensions. When it is remembered also, that the transit will occupy less than *five minutes*, instead of as at present *twenty minutes to half an hour*, the saving alone of valuable time to men of business must ensure for it powerful support.

One of the objects of the company being to co-operate with the Government in carrying into execution the plan of the Royal Commissioners for an embankment of the Thames, contained in their Report (February 7, 1844), and recommended by previous parliamentary committees, it became the duty of the directors to seek an interview with the Earl of Lincoln, the Chief Commissioner of the Woods and Forests, and Chairman of the Commission of Metropolitan Improvements. This interview was obtained on the 26th of last September, and of which the result was the transmission in writing by the company, through their chairman, the Earl of Devon, of the following proposal to the Government:—

“That the whole expense of the Embankment should be defrayed by the company, subject to the stipulation that the Company should be at liberty to connect with such Embankment an atmospheric railway viaduct, of ornamental construction, and to continue such viaduct eastwards of Blackfriars bridge to the present Blackwall terminus, in Fenchurch Street, and also across the river by a railway bridge, or by one of the existing bridges, to join the Greenwich, Dover, Croydon, and Brighton Railways.”

The reply of the Earl of Lincoln, dated October 10, 1845, is to the effect that a correct judgment can only be formed of the proposal of the company after a careful examination of the details of a river line of railway, as affecting public and private interests connected with the navigation; but it concludes, as will be seen by the following extract, with stating that his lordship is ready to enter into such examination, and that the projected railway shall be the first subject brought under consideration at the ensuing meeting of the commission:—

“It will also, I have no doubt, be evident both to your Lordship and the

Company, that, at the present period of the year, with many members of the Commission out of town, and some probably out of the kingdom, any effort that I might make to have the subject now taken up and satisfactorily disposed of would be unavailing. If, however, after the statement I have thus frankly submitted to you, the Company should feel disposed at once to give the usual Parliamentary notices, such notices having reference to the embankment and railway combined, I can only assure your Lordship and them that I shall feel it my duty to obtain a meeting of the Commission early in the ensuing year, and to make the construction of the projected railway the first subject for consideration; and I have no doubt, that having reference to the importance of an early decision, the inquiries of the Commission may be closed in ample time for any necessary proceedings of the Company in Parliament."

The promised reference to the Royal Commission is properly regarded by the directors as an important advantage, affording an assurance to the shareholders that their funds will not be wasted in fruitless and expensive parliamentary contests. Should the report of the Royal Commission be favourable, which is highly probable, the company will proceed with their bill in the approaching session, as they are prepared to do, under auspices which must ensure success; but in the event of the plan not being recommended to the immediate adoption of government, the company will be placed in a position to meet the views of the commission in the subsequent session, or to return the deposits with a trifling deduction for preliminary surveys.

We have only to add that Mr. Barry has accepted an engagement from the company for the architectural elevations connected with the river front of the embankment, especially in reference to the most effective mode of passing the Temple Gardens; and that the Board having endeavoured with success to cultivate a friendly understanding with the Central Terminus Company and the Great Western and Brentford Company, no competing line is likely to be presented to parliament.

It is likely that this would only be the commencement of a magnificent work, the uses and extent of which can hardly yet be defined. At present Mr. Page proposes to commence at Hungerford Market, but so many great improvements are contemplated on the banks of the Thames, that it is probable he will have to carry the embankment considerably higher up the river. A public park in Battersca Fields has been determined upon, and next session the Commissioners of Woods and Forests intend to apply to parliament for a bill empowering them immediately to commence its formation. It would form a most eligible terminus or resting point to the western extremity of the embankment, and the approach to the Park from town along a public terrace would constitute an invaluable addition to the healthful and recreative resources of the capital. In addition, other projects of utility might be advantageously combined with an extension of the Thames embankment; namely, the facilities it would afford to the projected

CEMETERIES ON THE BANKS OF THE THAMES.

It is seldom that governments move, nor, perhaps, can they move with advantage unless the way is marshalled for them, and they are impelled onward by the voice of the public. Years have elapsed since a very able report was made by a committee of the House of Commons depicting the monstrous evils resulting from the existing mode of sepul-

ture in the metropolis; but no initiative amendment has been begun, nor any legislative measures introduced by the executive founded on their representations. The "leave alone" policy seems the favourite course of abandonment by rulers, and the *laissez faire* principle is likely rapidly to grow in their estimation—holding out as it does such a seductive suasion to indolence and exemption from ministerial responsibility. Partly on these grounds no doubt it is that improvements in the practice of interment, like other public meliorations, have been left to the random, conflicting, and often ill-concocted and wasteful schemes suggested by individual cupidity, or occasionally, it may be, a laudable spirit of enterprise.

The great end to be aimed at in the establishment of improved cemeteries is to prevent the interment of the dead near the habitations of the living. In the most crowded thoroughfares of London graveyards yawn above, beneath, and around us, constantly receiving and giving up their contents, and tainting with their pestilential effluvia the atmosphere in which we are compelled to move and live. The common sympathies of humanity are continually outraged by the revolting spectacle of violated sanctuaries, and the indignities offered to the dead are often as grossly indecent as if exposed to be tossed about for sport, like carrion in the public streets, and form the opprobrium of our national faith and character. Many attempts have been made to abate this nuisance, and recent occurrences in Spasfields and other burial-grounds have awakened general feelings of disgust, and an anxious desire in a wide circle to abolish at once and for ever interments within the limits of the metropolis.

Before the committee referred to, evidence was given by persons in almost every rank of life to the objectionable nature of the existing practice. Even sextons and grave-diggers appear to have been shocked by the revolting sights often unavoidably exhibited in London from the crowded state of the burial-grounds, and which could scarcely have been thought possible in the present state of society. Besides these, clergymen and dignitaries of the church, and professional gentlemen of eminence, bore strong testimony to the manifold evils thence resulting, both to the public health and morals. The Rev. J. Russell, D.D., said, "It is sickening; it is horrible!" Sir James Fellowes, M.D., "It becomes a serious question, with an increased and increasing population, upon what rational grounds such an objectionable practice can be longer continued without danger to the public health." James Copland, Esq., M.D., "I believe that the health of large towns is influenced by four or five particular circumstances; the first, and probably the most important, is the burial of the dead in large towns. In considering the burials in large towns, we have to consider not only the exhalation of the gases, and the emanations of the dead into the air, but the effect it has on the subsoil, or the water drunk by the inhabitants." Sir Benjamin Brodie, when asked whether he considered the crowded state of the churchyards as one cause of fever or disease in the metropolis, answers, "I have always considered that as one cause. My opinion is, that the interments in the interior of this town must be injurious to the health of the town." W. F. Chambers, Esq., M.D., states, "I have no doubt that the fevers which are called typhus, even in this cleanly quarter of London, (Brook Street,) owe their origin to the

escape of putrid miasma. I should presume that over-crowded burying-grounds would supply such effluvia most abundantly;" and the whole mass of evidence taken before the Parliamentary Committee leads to a similar conclusion.

Admitting, as we think it must, that a great public evil has been established, the next important inquiry is, the most eligible mode of its alleviation or removal. Where, and under what arrangements can the dead be interred, so as best to meet the popular sentiment and the general good and convenience? And next, what would be the extent of site or accommodation requisite for the purpose?

To answer the last it will be necessary first to consider the *time* requisite for the decay of bodies in the earth, and the space they occupy. According to the statement of a leading medical journal, the period during which decomposition ensues varies with the condition of the body, the state of the atmosphere, the age of the deceased, the material of the coffin, whether metal or wood; the nature of the soil, and the depth at which burials take place. Thus, infants decompose sooner than children, children than adults, and adults than the aged. The bones are the parts that resist decay the longest, and are mostly found in the oldest cemeteries. Under ordinary circumstances ten years is considered the average time necessary to insure the all but total decomposition of the body and coffin with adults, and eight and seven with children and infants. It is evident, therefore, that no grave should be opened within the latter period, and the existing disgusting practice of opening graves at shorter intervals, and piling four or five coffins one upon another, ought to be repudiated as an outrage to decency and repugnant to the public health. But at the expiration of ten years the whole ground might be broken up with impunity, and would have again become, without hurt to the living, a suitable receptacle for mortality.

Applying these data to the metropolis the following results have been deduced. The average annual mortality is taken at 50,000, and allowing, as is the practice in Germany, thirty-two square feet for an adult, with a proportionate less area for minors, the entire space requisite for one year's burials in the metropolis would be forty-eight acres, or an area about as large as St. James's Park. On the decennial renewal plan the total area required for interments would be 444 acres, an area nearly as large as the Regent's Park, or as Hyde Park and Kensington Gardens combined. If the graves were allowed to remain undisturbed for a longer period, the area requisite for the cemetery would be proportionably increased.

The space allotted to the dead in this estimate is double that to which they are now restricted in London. The total number of acres contained in the intra-mural metropolitan burying-grounds, of every description, amount to 218, in which above 44,000 persons are annually buried and deposited in graves. Thus, an area which would not afford annual burial for more than 25,000 persons on an openly practised system of decennial disinterment, is made to receive nearly twice that number, very many, at the same time, being interred by their relatives on the understanding that the grave is never to be disturbed again!

It follows from this statement that a cemeterial area of 500 acres would amply suffice for the entire annual mortality of the metropolis, and that by the appropriation of a site of this extent the whole nuisance and re-

proach that now attach to it might be removed. But the whole of this surface would not be immediately required, only within the lapse of the entire decennial period. In the first year only forty-eight acres would be used ; in the second year a similar applotment, and it would be only in the tenth year of the term of rotation, when the inclosure first employed had again become fit for a renewal of interments, that the last instalment of the 500 acres would be required. It is probable that some of the higher and middle classes might object to have the graves of their relatives disturbed at the expiration of ten years ; provision for this contingency might easily be made by a reserve of ground for catacombs, cenotaphs, and mausoleums for a longer term, or in perpetuity. In the selection of site the distance must be such that the dead are not a source of disease to the living, and with this view an elevated northern aspect is desirable ; the north winds being drier and colder than the others, and less likely in consequence to be loaded with miasma. Facility of access is an important consideration. Many of the existing cemeteries are situated at such an inconvenient distance, as to be placed wholly beyond the pecuniary means of the humbler classes, except in their immediate neighbourhood ; they are also small compared with the exigencies of the present and future generations. But while generally accessible, the proximity of a cemetery ought not to be such as to disturb and sadden populous districts by the frequent preparations and paraphernalia of funerals.

All the chief requisites of a metropolitan cemetery would be apparently met by adopting the suggestion of the Parliamentary Committee, and selecting their site on the banks of the Thames. It is to carry out this hint that the "Grand Eastern and Western Metropolitan Cemeteries Association" has been constituted under high and responsible names. They propose to purchase extensive tracts of land having a river frontage for the reception of funerals by water, and to establish stations on both sides of the river for the temporary reception of bodies destined for burial. This last is intended to meet a recommendation of the Health of Towns Committee, by obviating the painful and often hurtful necessity which arises from retaining for days, in rooms occupied by the living, corpses in the various stages of decomposition. Steam and other boats will be constructed for the conveyance of the dead, the mourners, and friends of the deceased, to the burial-ground, with all due regard to decorum, and alike adapted for public and private funerals : water conveyance, however, will only be held auxiliary, and not as replacing that by land, and is intended chiefly with a view to general accommodation by economising unavoidable expenses. Facilities will be afforded for both modes, and the wealthier classes allowed to indulge, if they prefer, in more splendid funereal testimonials.

Combined with these objects we hope to see another consolidated. A Temple of Fame is greatly needed in the metropolis. Westminster Abbey is already over-crowded with testimonials, and is besides too secluded, collegiate, and exclusive in its associations for a national Valhalla. It is not for the renown of the illustrious dead only, but also for the good of the living, that we ought to commemorate their deserts. Madame de Stael used to urge that churches, with other sanctuaries, ought always to be kept open for the occasional retirement, monition, and consolation of survivors. Upon the same principle public monu-

ments, whose chief rational aim is to guide and animate by examples of past worth and greatness, ought to be generally accessible to the public; placed not in obscure, or mean, but conspicuous and open places of resort. They should meet the eye at those times and in those localities most favourable to endearing and elevating impressions. For uniting these ends we can imagine no opportunity more favourable than the projected cemeteries, on an expanded and magnificent scale, on the banks of the Thames; and which, with their primary purpose of sepulture, might combine that of being appropriate receptacles for posthumous commemorative memorials, either of a public or private character, after the manner of the *Père la Chaise*.

METROPOLITAN TERMINI.—SURREY, LONDON, AND METROPOLITAN RAILWAY JUNCTION COMPANIES. — EAST AND WEST INDIA DOCK AND BIRMINGHAM JUNCTION RAILWAY.

The question of metropolitan termini is one of great local importance; but has not, we apprehend, been sufficiently investigated to enable any party safely to judge and conclude on the most eligible sites for the purpose. Locomotive enterprise has been mainly directed to the long lines, by which the exterior circle of the capital might be connected with the chief towns of the kingdom, and it is only recently that the necessity of continuing their extremities into the heart of the city, and to the shore of the Thames, has been impressed on public attention. No doubt, for a beginning, the undertaking to reach by rail any part of the outskirts of London from Liverpool, Manchester, and Bristol, was esteemed sufficiently arduous, without contemporaneously entertaining the next and hardly less gigantic operation of extending the communications by penetrating through the crowded streets and densely packed buildings of the metropolis, to the centre of its population and traffic. But this is the next advance that must be aimed at, and which urgently calls for the inventive contrivance of engineers, projectors and speculative inquirers. It is manifest that there is a hiatus in railway intercourse with the north, east, and west of England, and that means must be devised by which passengers and goods, north of the Thames parallel, may be brought nearer to their ultimate destination, in place of being left at the outside of the metropolitan circuit.

Various schemes have been put forth for meeting the whole or a portion of the defects of communication. At one period nearly half a dozen junction projects were afloat, and one, amidst the general wreck, we perceive, still holds up its head—the Metropolitan Railways Junction Company. Their plan is to encircle London at the distance of about twenty-five miles, commencing at Reigate, carrying the line by Dorking and Weybridge, crossing the Thames between Egham and Staines, and thence continuing through Datchett, Uxbridge, Watford, Hertford, Ware, and Chelmsford, branching thence direct to its terminus at Tilbury, opposite Gravesend. By keeping this route, it would intersect at some of their chief stations the leading lines on both sides of the river in their course to London. It is chiefly intended for the convenience of passengers from the country, who wish to branch off, on reaching some intermediate place to the capital, without the delay and expense of passing through it. The traffic of such a lengthened curve would doubtless have many feeders; but its ex-

treme length (about 200 miles) constituting nearly a circle of fifty miles diameter round London, would render it a very grave undertaking. The directors, however, only ask for a capital of two millions for a commencement.

The Surrey Grand Junction Company projected a shorter line, chiefly limited to the construction of a connecting communication between the principal railways on the south side of the river. Three other companies were formed with the view of a central city terminus, communicating either directly or by branches with the north, west, and east lines. One of these companies selected for a central terminus and goods depôt the north bank of the river, between Southwark and Blackfriars bridges, a river line already fully and usefully occupied, and besides, being above the bridges, wholly unsuited for the foreign shipment of merchandize. The North London Junction Company selected for a central terminus ten acres of ground, of which the southern boundary is within 600 yards of the Bank of England, and which the provisional committee, Messrs. Atwood, Horne, Bosanquet, &c., announced had been "most carefully surveyed and valued, and found to be of so highly favourable a character from the report of their architect and engineer, that they had determined on *purchasing the entire site!*" The vicinity, indeed, seems to have been generally considered most eligible, for another company, the "North Metropolitan Junction Railway," resolved to commence business in the same neighbourhood, and fixed for a starting point on a spot near the back of Finsbury Circus, between Paul Street and the Curtain Road, extending by line across the Britannia Fields, through Islington, to the foot of Highgate Hill, and thence by branches to all parts north of the Old Street Road parallel. Lastly, Farringdon Street was recommended by the Board of Trade as an eligible central city terminus, and from which, according to the report and survey of the city solicitor, a covered way along the Fleet Valley might be readily carried, without encountering any serious engineering difficulties, to the Camden Town and Paddington stations.

In these selections of site, one most essential metropolitan convenience appears to have been entirely overlooked, namely, the *foreign commerce of the port of London*. Farringdon Street, or still better, Smithfield Market, might be admirably suited as a passenger terminus and goods depôt for the home trade and consumption of the city, but would be totally unsuited to the vast export trade of the river. Commodities intended for foreign shipment must be brought by line down to the water's edge, otherwise the great need of the port of London will continue unsatisfied. It was for precisely a similar point that the merchants of Liverpool contended, before a railway to Manchester was determined upon; they argued, and with reason, that unless the line was carried through Edgehill down to the docks, where goods were landed and shipped, it would be of little use to them; hardly any expense of transport would be saved, if cartage continued requisite to convey Manchester goods to and from the town to an intermediate station. These reasons prevailed, and though the merchants of London have no Herculean obstruction to surmount equal to that of Edgehill, they have obviously a similar object to realize, namely, a central metropolitan terminus proximate to the river, with branch or direct lines to the London and Katherine, and the East and West India Docks.

The Blackwall Railway will doubtless ultimately become the great commercial line of the metropolis, running as it does almost parallel to the chief export docks of the Thames. It is not, indeed, impossible that the pool may be hereafter relieved of a portion of its shipping traffic; and when the London and South Essex line has been constructed, that Southend may do for the port of London what Birkenhead is rapidly upon the eve of effecting for the port of Liverpool. But this pertains to the future, and in the interim it is important to consider what steps are being taken to effect intervening accommodations.

For these objects "The East and West India Docks and Birmingham Junction Railway Company" has been constituted; and including in its directory the names of Davidson, Daniel, Lyall, Seager, Reid, Hankey, Young, Anson, and Grenfell, with others not less eminent, it comprehends the parties officially and commercially most deeply interested in the success of the undertaking. Their line of railway is intended to commence at the Camden Town station of the London and Birmingham, and to terminate at the extensive quays and warehouses of the East and West India Dock Company. The facility, therefore, of receiving goods from all parts of the country, and despatching them from the port of London, without the expense of cartage, will be secured, as the trains will proceed to the quay of the docks, and discharge their lading direct into the vessels or warehouses; in a similar direct mode imported merchandize will be reconveyed to the Camden Town station, by which all risk of damage, breakage, and pilferage will be avoided. Although at present a connexion with the Birmingham Railway alone has been negotiated, it is likely that the Great Western and Eastern, and all the existing and projected metropolitan railways from the manufacturing and mineral districts, will be tempted to avail themselves of this direct line of sea communication below the bridges. The cost of the undertaking is likely to be moderate, from the absence of engineering obstructions, and no tunnels being requisite throughout its course. It will avoid all expensive house property, and pass between Islington and Holloway, skirting Hackney and Victoria Park, thus reaching the West India Docks, where a communication will be had with the centre of the city by means of the Blackwall Railway. The amount of capital with which the directors propose to commence the work is 600,000*l.*, in 12,000 shares of 50*l.* each, with a deposit of 5*l.* per share, and which it is probable will be chiefly raised among themselves and immediate connexions.

A cheap and speedy transport of goods is doubtless mainly in view, but the income from passenger traffic is likely to be great; as in addition to the daily local traffic between the New Road, Islington, Holloway, Hackney, and the city, the railway will enable parties from a distance to proceed direct to the principal quay of embarkation for foreign steamers, as well as persons from the suburbs through which the line will pass, to proceed at once, saving the diversion through London, to the Brunswick Wharf, the usual place of departure for excursion boats, and the continental and other outward-bound packets.

The Company have not put forth any general estimate of traffic or profits, but with a desire to forward a design that appears to have been well conceived and likely to effect a great mercantile accommodation,

we shall supply them with some facts tending to elucidate the probable results of their enterprise.

The daily passenger traffic on the Great Western amounts to 3,345, one half of whom reach the city. The Eastern Counties amounts to 2,400 persons daily, half of whom pass to the west end of London. The omnibus traffic daily is 30,894 passengers, two-thirds of which may be given to the city. Passengers from the suburban districts reaching the city, now unaccommodated by any railway, are estimated at 4,000 daily. From these data, the subjoined products may be derived:—

	Per Ann.
Passengers from the Great Western and Birmingham Railways, at 6d. each	£52,523
Passengers from the Eastern Counties to the city terminus of this Company, at 3d. each	12,061
Omnibus passenger traffic, at 6d. each, as taken at present	187,929
142,208 tons of goods and parcels pass annually from the Great Western and the London and Birmingham Railway into the city at an average cost of carriage of 3s. 6d. per ton throughout. From the carriage of these goods and parcels, therefore, at the reduced cost of 2s. 6d. per ton, a revenue may be derived of	17,776
From the carriage of goods, parcels, and mails, bringing in to the Eastern Counties Railway Company a revenue of 40,000 <i>l.</i> a year, may be derived the sum of	10,000
The total of these calculations amounts to	280,289
Deduct 40 per cent. for working expenses	112,115
	<hr/> £168,174

Thus upon the present capital, only from three lines, exclusive of the enormous amount that must accrue from the London and York, Leeds and other lines a profit of *twenty-eight per cent.* would be realized, and which it is likely would be quadrupled, or indeed incalculably increased.

COMMISSION ON THE GAUGES.

THE members of the Gauge Commission, appointed last session, have during the past week been engaged in prosecuting experiments upon the velocities which can be commanded, as a general working rate, upon a broad-gauge line. They were assisted in these experiments by many men eminent in science; and attended by Mr. Gooch, superintendent of the locomotive department of the Great Western Railway, and Mr. Bidder, the engineer, as the representatives respectively of the broad and narrow gauge interests. The line selected was a length of fifty-three miles of the Great Western, from Paddington to Didcot; the train was composed of eight six-wheeled carriages, containing twenty-four passengers, and weighted with iron up to a "gross load" of eighty tons. The engine was the "Ixion," weighing with its tender twenty-six tons.

The experiments being designed for comparison with a second set hereafter to be instituted on some narrow-gauged lines, we shall reserve our examination of their results till the investigation has reached a more advanced stage. It is, however, interesting to learn that the velocity attained in the experiments closely approximates with the ordinary experience of the "express" trains on the line. The time-tables of the company give the usual daily performances, at an average of about forty-four miles and a half per hour (stoppages included); the maximum velocity during the journey being commonly sixty miles, with a gross load of from sixty to seventy tons. In the experiments, the fifty-three miles were traversed, upon the average, in sixty-one minutes and a quarter, or with the velocity of fifty-two miles and three quarters per hour, without stoppages—the maximum being one mile in sixty-two seconds. If we suppose that the result of the experiments on the narrow-gauge line will present as close an accordance with the usual rate of the Birmingham express train, we shall have an average velocity of thirty-seven miles and a half per hour, maximum forty-eight miles, and weight of load forty-eight tons: presenting a considerable inferiority in every respect to the broad gauge.

The commissioners are, we believe, collecting the materials for comparing, also, the respective charges for fuel and working, the power required for locomotion, original cost of engines, wear and tear of these and of the rails, and such other elements as are requisite in order to form an estimate of the practical and economical bearings of the subject in hand. While waiting the appearance, *in extenso*, of the commissioners' report on these details, it may be worth while to refer to the results obtained from the official returns of various companies, and published last session in the "Minutes of the Evidence taken by the Committee on Group F" (Oxford, Worcester, and Wolverhampton District). Collected in a tabular form, the returns show that, on the undermentioned lines, the gross cost of conveying passengers was:—

	<i>d.</i>	<i>d.</i>
Great Western	10.5 per train per mile	.15 per ton per mile.
Birmingham and Gloucester	9.5 ... ...	.24
(Narrow Gauge.)		
Grand Junction (ditto) . .	11.9 	(Not given.)
South Western (ditto) . .	12.8 ... ...	.33

For goods, the results were:—

	<i>d.</i>	<i>d.</i>
Great Western	16.6 per train per mile	.06 per ton per mile.
Birmingham and Gloucester	14.3 ... ...	.09
South Western	13. ... ...	.1
Grand Junction	20. ... ...	.13

The comparison of the *dead weight* carried on the respective lines showed:—

	<i>cwt.</i>	<i>cwt.</i>
Great Western (First Class)	4.6	(Second Class) 2. per passenger.
Average of narrow gauge .	4.4	... 2.9

With these figures before us, the conclusion is irresistible, that the advantage of the broad gauge is as great on the score of economy as on that of speed.

Unfortunately, however, it is now too late in the day to permit of much practical advantage being taken of the experiments now in progress. Whatever breadth of gauge may be determined on as possessing the qualities of economy and speed in maximum proportion, we have the fact before us that the railway system, or rather *two* railway systems, have taken firm root, and have constructed, according to their respective principles, many hundred miles of lines which it would not be possible to remodel without incurring an expense such as hardly any prospective advantages could justify. With 4,500 miles of line constructed or constructing on the narrow-gauge principle, and 700 on the broad, the matter is now somewhat beyond the reach of *theory*. We must, therefore, take things as we find them, and, without contemplating any extensive alteration of either system, endeavour to obviate their greatest evils,—viz., those arising from the *break* of gauges. The delays and confusion to commercial intercourse, whenever a change of gauge is necessary, are already sufficiently great, and must increase rapidly as the ramifications of the two systems become more extended. But, if ever our railways should be required as agents in military operations, the evil would become enhanced tenfold. Sir W. Gordon and Sir J. Burgoyne have given evidence on this point before the Gauge Commissioners, from which it appears that those experienced officers are of opinion that, “a break of gauge would be attended with danger, if not disaster; that great inconvenience would result from the possible want of carriages at a point of change of gauge; great inconvenience from the delay it would occasion, and from the packing and unpacking of luggage and ammunition after they have been once stowed away; that the practical inconvenience would be similar to that of a ferry; and that in many cases the military uses of a railway would be completely nullified.”

A complete remedy for these embarrassments may be beyond our reach; but one which would go far to remove them, and at the same time not cost too much, would be to render the broad-gauge lines practicable for carriages of both dimensions. To effect this, nothing more would be requisite than the addition of a single rail, at the proper distance from one or other of the existing rails, both on the up and down line, of all the broad-gauge railways. All the practical difficulties of construction, and at the crossings, sidings, stations, &c., may be easily overcome; the signals would remain the same; the chances of collision not greater than if the gauges were uniform. The ground is already prepared; and the cost would be absolutely nothing more than the purchasing and laying down of the additional rails; at which price we shall obtain the great advantage of enabling the engines and carriages employed on five-sixths of our railway lines to traverse without interruption the wide district at present monopolized by the remaining sixth. Why the companies themselves have not sought the benefits which are procurable at so trifling a cost, must, we fear, be attributed in great measure to their mutual jealousies, which are too often allowed to overpower all other considerations. We trust that the Gauge Commissioners will not close their labours without recommending the Legislature to render imperative the adoption of the plan we have proposed, or some other as good; we shall otherwise have to fear that all their elaborate and costly experiments will end merely in the gratification of philosophical curiosity, leaving no result of practical utility.

LIST OF PLANS LODGED WITH THE BOARD OF TRADE.

Ambergate, Nottingham, and Boston.	Buckinghamshire—Harrow to Aylesbury.
Ashburton, Newton, and South Devon.	Buckinghamshire — Tring to Banbury.
Ashton-under-Lyne and Manchester Junction.	Buxton, Macclesfield and Congleton.
Aust Bridge.	Buxton, Congleton, and Crewe.
Axholme, Gainsborough, Goole, and York and North Midland Junction.	Cambrian and Grand Junction.
Aylesbury and Thame Junction.	Charing-cross Station.
Bath and Dover Direct.	Charing-cross Bridge Railway.
Bedford and Cambridge Extension.	Chelmsford, Malvern, and Blackwater.
Bideford and Tavistock.	Chelmsford and Bury, and branches.
Birkenhead and Holyhead Junction, and Mold Extension and branches.	Cheltenham, Oxford, and London Junction.
Birkenhead and Llangollen.	Cheltenham and Oxford.
Birkenhead, Lancashire, and Cheshire Junction.	Chepstow, Forest of Dean, and Gloucester.
Birkenhead and Llangollen.	Chester and Birkenhead—Widening and branches.
Birmingham and Oxford Junction.	Chester and Manchester Direct.
Birmingham, Wolverhampton, and Dudley.	Chichester and Bognor.
Birmingham and Bristol—Malvern lines.	Clitheroe Junction.
Birmingham and Bristol—Bath lines.	Cockermouth and Workington Extension.
Birmingham, Wolverhampton, and Stour Valley.	Colchester and Sudbury.
Blackburn, Darwen, and Bolton.	Cornwall.
Blackburn, Clitheroe, and North Western Junction.	Cornwall and Devon Central.
Blackburn and Preston—Proposed new branches.	Coventry, Nuneaton, Birmingham, and Leicester.
Blackburn, Chorley, and Liverpool.	Derby, Gainsborough, and Great Grimsby Junction.
Blackburn and Preston, and East Lancashire Amalgamation.	Derby and Crewe.
Bodmin and Wadebridge Extension.	Direct London, Portsmouth, and Chichester, and Direct Portsmouth and Chatham lines.
Boston, Newark, and Sheffield.	Direct Lincoln, East Retford, and Sheffield Junction.
Boston, Newark, and Sheffield, and Nottingham and Grantham Junction.	Direct Birmingham and Leicester.
Boston, Stamford, and Birmingham—Leicester by Stamford to Boston and Wisbech.	Direct Sheffield and Macclesfield.
Boston, Grantham, Leicester, and Midland.	Direct Northern.
Bridgewater and Minehead.	Direct Western.
Bristol and South Wales Junction.	Direct Northern—London to York.
Bristol and Birmingham—Gloucester and Stonehouse Junction.	Direct London and Exeter.
Bristol and Exeter Railway—Crewkerne branch.	Dudley, Wolverhampton, Walsall, and Tamworth.
Buckinghamshire — Oxford and Bletchley Junction.	East and West Coasts.
	East Lancashire Amendment.
	East Lincolnshire.
	East Union and Hadleigh.
	East Lancashire and Anedale Extension, from Colne to Addingham.

- East and West Yorkshire Junction.
 Eastern Union—Ardleigh to Colchester.
 Eastern Union and Harwich.
 Eastern Counties and Thames Junction branch.
 Eastern Counties Station Lands.
 Eastern Counties—Gravesend and Tonbridge Wells.
 Ely and Huntingdon—Extension to Bradford.
 Ely and Huntingdon—Extension to Wisbech.
 Ely and Bury.
 Ely and Bury St. Edmund's.
 Epsom and Dorking.
 Erewash Valley—branches.
 Essex and Suffolk.
 Exeter Great Western.
 Exeter, Topsham, and Exmouth.
 Exeter, Yeovil, and Dorchester.
 Exeter and Exmouth.
 Exeter, Dorchester, and Weymouth.
 Falmouth, Helston, and Penzance.
 Furness Extensions.
 Furness and Windermere.
 Glamorgan Central Mineral.
 Gloucester and Dean Forest.
 Goole, Doncaster, and Sheffield.
 Grand Junction and Midlands Union.
 Grand Junction—Huyton and Ashton branches.
 Grand Junction—Huyton and St. Helen's branches.
 Grand Junction—Huyton and Edgehill Extension.
 Grand Junction—Showell, Portobello, and Wolverhampton branch.
 Grand Junction—Warrington and Huyton branch.
 Grand Junction—Parkside branch.
 Grand Junction—Huyton and Warrington branch.
 Grand Trunk, for Stafford and Peterborough Union.
 Grand Union, No. 1.
 Grand Union, No. 2.
 Great Grimsby and Sheffield Junction—Humber Ferries.
 Great Grimsby and Sheffield Junction—Extension 1.
 Great Grimsby and Sheffield Junction—Extension 2.
 Great Grimsby and Sheffield Junction—Extension 3.
 Great Grimsby, Sheffield, Potteries, and Grand Junction Railway.
 Great Grimsby, Louth, Horncastle, Lincoln and Midland Junction.
 Great Kent Atmospheric.
 Great North of England—Boroughbridge branch.
 Great North of England—Bedale branch.
 Great North and South Wales.
 Great North and South Wales—Newtown branch.
 Great West of England, and South Western and Exeter Junction.
 Great Western and Wycombe.
 Great Western and Uxbridge.
 Great Western, Southern, and Eastern Counties.
 Great Western—Staines and Henley Extension.
 Great Western and Falmouth Junction.
 Great Western and South Western Junction.
 Halesworth and Norwich.
 Hertfordshire and Bedfordshire.
 Holborn Terminus.
 Horbury-bridge and Wakefield.
 Huddersfield and East and West Coasts Direct.
 Huddersfield and Liverpool Direct.
 Huddersfield and Manchester.
 Huddersfield and Manchester—Cooper Bridge branch.
 Huddersfield and Manchester—Oldham branch.
 Huddersfield and Manchester—Bradford branch.
 Huddersfield and Manchester—Huddersfield diversion.
 Huddersfield and Sheffield Junction.
 Huddersfield and Sheffield—Darfield branch.
 Hull and Lincoln Direct.
 Hull, Malton, and Northern Union.
 Hull and Barnsley Junction (No. 1).
 Hull and Barnsley Junction (No. 2).
 Hungerford Extension.
 Ipswich and Bury St. Edmund's—Norwich Extension.
 Ipswich and Bury St. Edmund's—Cambridge and Ely Extension.
 Ipswich and Bury St. Edmund's—Stowmarket to Sudbury.
 Ipswich, Norwich, and Yarmouth.
 Keighley, Halifax, and Huddersfield.
 Lancaster and Carlisle—Branch or extension to the Caledonian.
 Lancashire and North Yorkshire.
 Lancaster, Weardale, and Hartlepool Union, and branch.
 Langston Dock.
 Launceston and South Devon (No. 2).

- Leeds, Wakefield, and Midland Junction.
- Leeds, Midland, and Lincolnshire Junction.
- Leeds and Carlisle.
- Leeds and York.
- Leeds and Bradford—Alteration of levels at Bingley.
- Leeds and Bradford — Junction at Bradford.
- Leeds and Bradford — Guisely branch.
- Leeds and Thirsk — Wharfedale branch.
- Leeds and Thirsk — Nidderdale branch.
- Leeds and Thirsk — North-Eastern Extension.
- Leeds, Dewsbury, and Manchester—Deviations and branches.
- Leeds, Dewsbury and Manchester.
- Leeds and Dewsbury — Wakefield Extension.
- Leeds Central Station.
- Leicester and Birmingham—branch to Coventry, and other branches.
- Leicester and Bedford.
- Leicester and Coventry.
- Leicester and Tamworth.
- Lincoln, Wainfleet Haven, and Boston.
- Lincoln and Eastern Counties.
- Lincoln and Grantham Direct.
- Liverpool and Preston, and Manchester and Southport.
- Liverpool, Birkenhead, Parkgate, and Holyhead.
- Liverpool and Bury, and branches.
- Liverpool and Bolton Direct.
- Liverpool, Manchester, and Newcastle-upon-Tyne Junction Railway.
- Liverpool, Ormskirk, and Preston.
- Llynvi Valley.
- London and Birmingham—Newport Pagnell branch.
- London and Birmingham—Aylesbury Railway purchase.
- London and Birmingham—St. Alban's and Luton branch.
- London and Birmingham—Camden and Euston Station Enlargements.
- London and Birmingham—West London Extension.
- London and Birmingham—General notice.
- London and Birmingham — Extensions.
- London and Birmingham—Banbury line.
- London and Birmingham—City of London Extensions.
- London and Birmingham Extension — Northampton, Daventry, Leamington, and Warwick, with branches to Rugby and Fenny Compton.
- London and Birmingham—branches.
- London and Birmingham—Coventry and Nuneaton.
- London, Bristol, and South Wales Direct.
- London, Bristol, and South Wales.
- London and Croydon and London and Blackwall Junction.
- London and Croydon — Deptford branch.
- London, Devizes, and Bridgewater Direct Western.
- London and Hounslow.
- London and Kidderminster.
- London and Manchester.
- London and Manchester—Extension to City.
- London and Manchester Direct Independent (Remington's line).
- London, Newbury, and Bath.
- London, Oxford, Cheltenham, Gloucester, and Hereford.
- London, Oxford, Cheltenham, and Oxford.
- London, Salisbury and Yeovil Junction.
- London and South Essex.
- London, Warwick, Leamington, and Kidderminster.
- London and Windsor.
- London and York—Hertford branch.
- Lowestoft and Beccles Drainage.
- Luton, St. Alban's, and Dunstable—London and York.
- Lynn and Ely—Extension to March.
- Lynn and Ely—Extension to Spalding.
- Lynn, Wisbeach, and Peterborough.
- Maldon, Witham, and Braintree.
- Manchester and Birmingham Continuation and Welsh Junction.
- Manchester, Bolton, and Bury Canal and Railway Extension and branch.
- Manchester, Buxton, Matlock, and Midlands Junction.
- Manchester, Midland, and Great Grimsby Junction.
- Manchester and Oldham.
- Manchester, Sheffield, and Midland, &c.
- Manchester, Southampton, and Poole.

- Manchester and Leeds.
 Manchester and Leeds—Middleton branch.
 Manchester and Leeds—Bacup branch.
 Manchester and Leeds—Horbury Bridge and Whitley branch.
 Manchester and Leeds—Horbury and Crigglestone branch.
 Manchester and Leeds—Manchester Stations Extensions.
 Manchester and Lincoln Union, and Chesterfield and Gainsborough Canal.
 Manchester and Poole.
 Manchester and Hyde.
 Manchester, Buxton, and Matlock and Midlands.
 Manchester and Southampton.
 Manchester, Wigan, and Southport.
 Midland—Leicester and Swannington alteration branches.
 Midland—Darfield to Elsecar, and others.
 Midland—Lincoln and Swinton.
 Midland—Syston and Peterborough deviations.
 Midland—Nottingham and Krewash Valley.
 Midland—Erewash Valley branches.
 Midland—Nottingham and Mansfield.
 Midland—General Notice.
 Midland—Claycross to Newark.
 Midland—Newark and Gainsborough.
 Midland—Birmingham and Gloucester, and branches.
 Midland—Burton-upon-Trent to Nuneaton, and branches.
 Midland—Burton-upon-Trent, Ashby-de-la-Zouch, and Leicester.
 Midland, Birmingham, and Gloucester branches—Crofton Hacket to Coughton, King's Norton to Halesowen, Extension at Birmingham.
 Midland and Eastern Counties.
 Midland and Eastern Counties—Alveston to Worcester.
 Midland and Eastern Counties—Cambridge to Weedon.
 Midland and Thirk Junction.
 Midland—Erewash Valley branches.
 Mold Junction.
 Monmouth and Welsh Midland.
 Monmouth and Hereford, (No. 1).
 Monmouth and Hereford, (No. 2).
 Morecambe Bay Harbour.
 Newcastle, Durham, and Hartlepool.
 Newcastle and Berwick—branches.
 Newcastle and Darlington Junction.
 Newcastle and Darlington, Bishop's Auckland, and Helton.
 Newcastle and Darlington and Sunderland branch.
 Newmarket and Chesterford.
 Newport and Hereford.
 Norfolk Extensions—Stowmarket, Wymondham, and Attleburgh.
 Norfolk Extensions—Thetford and Reedham branch.
 Norfolk Extensions—Yarmouth Extension.
 Norfolk Extensions—Dereham, Wells, and Blakeney branch.
 North Cheshire.
 North Devon, Tiverton, Honiton, and London Direct Junction.
 North Kent.
 North Staffordshire—Potteries line.
 North Staffordshire—Churnet Valley line.
 North Staffordshire—Harecastle and Sandbach, Port of Liverpool Extension line.
 North Union, Trent Valley, and Midland Counties Junction, and Liverpool and Macclesfield Direct.
 North Wales and Orme's Head Harbour.
 North Wales Mineral—Ruabon deviation and branches.
 North Western.
 North and East Riding Junction.
 North and South Junction—Halifax to Keighley.
 Northampton, Banbury, and Cheltenham.
 Northampton and Banbury.
 Northumberland and Lancashire.
 Nottingham and Gainsborough.
 Nottingham, Mansfield, and Midlands.
 Nutbrook Valley.
 Oldham, Manchester, and Liverpool Junction.
 Oxford, Coventry, and Burton-on-Trent.
 Oxford, Newbury, and Andover.
 Oxford, Newbury, Andover, Manchester, and Southampton—Didcot to Andover.
 Oxford, Worcester, and Wolverhampton.
 Oxford and Salisbury Direct.
 Oxford, Witney, Cheltenham, and Gloucester Independent.

Peterborough and Nottingham—Melton Mowbray to Nottingham.	Sheffield, West Riding, and Midlands Junction.
Peterborough and Nottingham — Stamford to Nottingham.	Somersetshire and Midland.
Peterborough, Wisbech, Lynn, and Boston Junction—Peterborough and Wisbech.	Somersetshire and North Devon.
Peterborough, Wisbech, Lynn, and Boston Junction — Peterborough to Spalding.	Southampton and Dorchester.
Pontefract, Doncaster, Worksop, and Mansfield Junction.	Southampton to Andover.
Preston and Wyre Extension, and Darwen Junction.	Southwark Bridge.
Preston and Wyre — Lancaster branch.	South Staffordshire.
Preston and Wyre Dock and Railway —Longridge branch and Garstang branch.	Southern Counties Union and Bristol.
Portbury Pier and Railway.	South Midland.
Radnorshire, Aberystwith and Welsh Midlands.	South Devon—branches.
Reading and Reigate.	South Midland and Southampton.
Regent's Canal.	South Union.
Rhondda Valley.	South Union and Birmingham.
Richmond and Kew branch.	South Wales — Haverfordwest and Milford Junction.
Rochdale, Heywood, and Manchester.	South Yorkshire Coal.
Rugby and Swindon Direct Junction.	Shropshire Union and Canals—Shrewsbury and Stamford Canal line.
Rugby and Stamford.	Shropshire Union and Canals—Newton to Crewe, with branches.
Rugby and Huntingdon.	Shropshire Union and Canals—Chester and Wolverhampton line.
Rugby, Warwick, and Worcester.	Shropshire Mineral.
Rugby, Derby, and Manchester.	Shrewsbury and Trent Valley Union.
Rugby, Leamington, and Warwick—Warwickshire and London, Hampton, and Banbury.	Shrewsbury and Leicester.
Rugby, Leamington, and Warwick—Hampton and Aschurch.	Shrewsbury and Hereford.
Rugby, Leamington, and Warwick—Worcester and Weedon, with branches to Droitwich and Alcester.	Shrewsbury and Herefordshire.
Runcorn and Preston Brook.	Shrewsbury, Oswestry, and Chester Junction — Branches and deviations.
Salisbury, Wimbourne, and Poole.	Shrewsbury, Wolverhampton, and South Staffordshire Junction.
Salisbury and Yeovil Junction.	Shrewsbury and Birmingham.
Sheffield, Ashton-under-Lyne, and Manchester—Barnsley branch.	Shipleigh, Otley, and Wharfedale.
Sheffield, Buxton, Leek, Potteries, and Crewe.	Spalding and Brandon Junction.
Sheffield and Manchester—Whaley-bridge branch.	Staffordshire Potteries, and Liverpool and Manchester Direct.
Sheffield and Manchester — Dukinfield, Chapel-down, Glossop Works-borough branches.	Staines and Richmond.
Sheffield, Bakewell, and West Midland.	Stamford and Spalding Extension—London and York.
Sheffield, Wortley, Silkstone, and Wakefield.	Stamford, Market Harborough, and Rugby.
Sheffield and Lincolnshire Junction Extensions.	Stockton and Hartlepool Union.
	Stockton, Northallerton, and Leeds.
	Surrey Canal, Dock, and Railway.
	St. Helen's Canal and Railway.
	Swaffham Narborough.
	Taff Vale.
	Taw Vale Railway Extension.
	Tea and Dove Valley and Eastern and Western Junction.
	Tenby, Saundersfoot, and South Wales, and Pier.
	Thames Embankment.
	Thames Valley, Oxford, and South Wales Union.

Thetford, Bury St. Edmund's, and Newmarket.
 Trent Valley—Alrewas branch.
 Trent Valley—Midlands and Grand Junction.
 Trent Valley, Chester, and Holyhead Junction.
 Trent Valley Midlands.
 Trent Valley Continuation.
 Truro and St. Agnes.
 Tring and Reigate.
 Ulverstone, Furness, and Lancaster—Carlisle line.
 Uxbridge and West Drayton.
 Vale of Neath.
 Warwick and Birmingham Canal, with a branch from Knowle to Hampton-in-Arden.
 Warwick and Worcester, with a branch to Droitwich.
 Warwick and Cheltenham.
 Wakefield and Leeds branch—London and York.
 Waveney Valley.
 Waveney Valley and Great Yarmouth.
 Wear Dock Railway.
 Wear Valley Extension.
 Welsh South Midland, or Chepstow, Forest of Dean, and Gloucester Junction.
 West Cornwall.
 West-End and Southern Counties.
 West Lancashire.
 West Riding Union.
 Westminster, West-End, and Southern Counties and Terminus.
 Wexford, Waterford, and Valencia.
 Whitehaven and Furness—Lancashire Extension and branches.
 Wilts, Somerset, and Weymouth.
 Wisbech and Huntingdon.
 Wrexham, Droitwich, and Crewe.
 Wolverhampton, Bridgnorth, and Ludlow.
 Worcester, Hereford, Ross, and Gloucester.
 Worcester and Port Dynllaen.
 Worcester, Tenbury, and Ludlow.
 Wisbech Railway.
 Worcester and South Wales.
 Worcester and Merthyr Tydvil.
 Wolverhampton, Chester, and Birkhead.
 York and Carlisle.
 York and North Midland—Leeds Extension.
 York and North Midland—East Riding branches.

York and North Midland—Whitby and Pickering Extension.
 York and Lancaster.
 York and Glasgow.

SCOTLAND.

Alford Valley.
 Airdrie and Bathgate.
 Airdrie and Coatbridge.
 Ayr and Dumfries Junction.
 Ayrshire, Bridge of Weir, and Port Glasgow Junction.
 Ayrshire and Caledonian Junction.
 Ayrshire and Galloway.
 Avon Water and Mineral.
 Aberdeen, Banff, and Elgin.
 Banffshire.
 Banffshire Extension.
 British and Irish Union.
 Berwickshire Extension.
 Ballochney Extension.
 Central Monklands.
 Caledonian—Dumfries and Langholm branches.
 Caledonian—Glasgow termini and branches, and Dundee branch.
 Caledonian—Clydesdale Junction Deviations.
 Caledonian—Glasgow, Garnkirk, and Coatbridge Railway and branches.
 Caledonian—Branches to Granton, Leith, the Edinburgh and Glasgow Union Canal.
 Caledonian and Dumbartonshire Junction.
 Caledonian and Direct Northern.
 Caledonian Extension.
 Caledonian, from Muirkirk by Old Cumnock to Ayr.
 Carnwath and West Linton.
 Clydesdale Junction Deviation.
 Deeside.
 Dunblane, Doune, and Callander.
 Dundee and Perth Extension.
 Dundee and Arbroath Extension.
 Dunfermline and Lochgelly branch.
 East Lothian Central and Tyne Valley.
 Edinburgh and Peebles.
 Edinburgh and Bathgate.
 Edinburgh and Leith Atmospheric.
 Edinburgh and Hamilton Direct.
 Edinburgh, Portobello, and Musselburgh Direct.
 Edinburgh, Leith, and Granton—Wynchburg Extension.
 Edinburgh, South Leith, and Bonnington branches.
 Edinburgh and Glasgow and Dumbartonshire Junction.

- Edinburgh and Glasgow branches.
 Edinburgh and Northern—Strath-
 earn Deviation.
 Edinburgh and Northern—Lochgelly
 and Leslie branches.
 Edinburgh and Northern—Petticar
 branch, Dysart Deviation, Perth
 Terminus, and Perth Harbour
 branch railways.
 Edinburgh and Leith Direct Atmo-
 spheric.
 East of Fife.
 Eastern Coast of Scotland.
 Forth and Clyde Junction.
 Forfar Direct.
 Ferry Port on Craig, and Newport
 Extension, and St. Andrew's
 branch.
 Glasgow Harbour Grand Junction
 Terminus.
 Glasgow and Greenock branches.
 Glasgow, Strathaven, and Lesmah-
 gow Direct.
 Glasgow, Kilmarnock, and Ardrossan.
 Glasgow, Barrhead, and Neilston Di-
 rect branches.
 Glasgow Southern Terminal.
 Glasgow, Partick, and Dumbarton.
 Glasgow, Airdrie, and Monkland.
 Glasgow Harbour Mineral.
 Glasgow, Garnkirk, and Coatbridge
 Extension.
 Glasgow, Dumfries, and Carlisle.
 Glasgow and Ayr.
 Glasgow and Belfast Union.
 Glasgow Dock and Railway.
 Great North of Scotland.
 Great North of Scotland—Western
 Extension.
 Great North of Scotland—Eastern
 Extension.
 General Terminus and Glasgow Har-
 bour.
 Granton Junction.
 Hamilton and Strathaven.
 Inverness and Elgin.
 Kinross Junction.
 Kinross, Woodmill, and Newport
 branch.
 Kinross Junction, No. 2.
 Kilmarnock and Troon.
 Lanarkshire and Lothians.
 Lanarkshire and Galloway Junction.
 Lesmahagow, Dalsert, and Coatbridge
 Mineral Junction.
 Monkland and Kirkintilloch
 branches.
 Monkland and Kirkintilloch—pur-
 chase of part of Garnkirk.
- Morayshire.
 North British.
 Perth and Crieff Direct.
 Paisley, Barrhead, and Hurler.
 Perth and Inverness.
 Renfrew and Ayr Counties.
 Scottish Midland Extension.
 Scottish Midland branches.
 Scottish South Midland Junction.
 Scottish Central—Perth Station and
 Crieff Branch.
 Scottish Central—Alloa and Denny
 branches.
 Scottish Central and Caledonian
 Junction.
 Scottish Southern.
 Scottish Western — Inverarnon to
 Balloch.
 Scottish Western — Oban to Crain-
 larich.
 Scottish North Western.
 Scottish Grand Junction.
 Stirling, Dunfermline, and Queens-
 ferry.
 Strath Tay and Breadalbane.
 Strathearn Junction.
 Sanquhar and Muirkirk.
 Stirlingshire Midland Junction.
 Slamannan—Bathgate branches.
 Slamannan and Borrowstouness.
 Strathmore Junction.
 Tay Ferry Improvement and
 Broughty Ferry.
 Wilsontown, Morningside, and Colt-
 ness — Widening and improve-
 ment, and branches to Climpy and
 Shotts.
 Wilsontown, Morningside, and Colt-
 ness—Caledonian Junction.
 Wilsontown, Morningside, and Colt-
 ness—Bathgate branch.
 Wilsontown, Morningside, and Colt-
 ness—Branch from Greenhill to the
 Wishaw and Coltness.
 Wilsontown, Morningside, and Colt-
 ness—Branch from Knowlton to
 the Wishaw and Coltness.
 West of Scotland.
- IRELAND.
- Armagh, Coleraine, and Portrush
 Extension.
 Ballymena to Ballymoney.
 Belfast and County Down.
 Baltinglass Junction.
 Belfast and Holywood Atmospheric.
 Cork, Blackrock, and Passage.
 Cork and Fermoy Direct.
 Cork and Dublin Direct.

Cork and Limerick Direct.	Kilkenny and Clonmel.
Cork, Middleton, and Youghal.	Killarney Junction.
Cork, Passage, and Kinsale.	Larne, Belfast, and Ballymena.
Cork and Waterford.	Limerick, Ennis, and Killaloe Junction.
Clonmel, Kilkenny, and Carlow.	Limerick Western.
Dublin and Belfast Junction—Navan Branch Extension.	Limerick and Charleville.
Great Country Down and Belfast—Newry and Warrenpoint.	Mountmellick Junction.
Great Southern and Western—Clonmel to Thurles.	Newry, Armagh, and Londonderry Junction.
Great Southern and Western—Extension at Cork.	Newry, Banbridge, and Belfast.
Great Southern and Western—Mallow and Fermoy.	Newry and Castleblaney.
Great Southern and Western—Carlow to Kilkenny.	Newry, Warrenpoint, and Rostrevor.
Galway and Kilkenny.	New Ross, Carlow, and Kilkenny.
Great Hibernian Central Junction.	Roscrea and Parsonstown.
Irish North Midland.	Sligo and Shannon, and Canal.
Irish Great Western—Dublin to Galway.	Thurles, Carrick-on-Suir, Clonmel, and Nenagh.
Irish Great Western—Extension to Roscommon.	Wexford, Waterford, and Valencia.
Irish Great Western—Extension to Castlebar.	Waterford and Kilkenny—Carlow Extension.
	Waterford and Kilkenny—Extension to New Ross.
	Waterford, Wexford, Wicklow, and Dublin.
	Waterford and Tramore.

SOCIETY OF ARTS.—BROAD AND NARROW GAUGE.

THE First Meeting of the Society for the Encouragement of Arts, Manufactures, and Commerce, took place on the 17th, in the Great Room of the Society in the Adelphi, which was completely filled.

B. Bond Cabbell, Esq., F.R.S., one of the Vice-Presidents, took the chair, and an address from the Council was then read by the Secretary. The Council congratulated the Society on the auspicious commencement of their *ninety-second session*.

The first communication read to the Society was a paper on certain improvements in constructing the locomotive engines and permanent way of Railways, with reference to the question of wide and narrow gauge, by J. G. Bodmer, Esq., formerly of Manchester, now of London. In this paper, the author examines the question of the relative merits of the wide and narrow gauge; he ascertains that the question is not one either of relative safety or danger, but that it resolves itself ultimately into this question, which gauge will admit of the most perfect means for obtaining high velocities with greater regularity and economy. At present he admits the broad gauge has the advantage in more powerful and speedy engines; but he then proceeded to show that by placing the *cylinders outside* and by *increasing* the fire-box and flue surface in the manner he proposes, and by adopting the principle of compensation as in his double-piston locomotives, high velocities may be obtained with security, safety, and advantage. In short, that as powerful an engine in every way may be placed on the narrow gauge as on the wide one, and one equally well adapted to high velocities. He then went on to show how the chief limit to increase of power and the corresponding increase of weight in locomotive engines, consists not so much in the construction of the engines as in obtaining a permanent way suitable for the support of such enormous loads. By these loads travelling at high velocities concussions are produced which derange the permanent way, and

are at present the chief sources of danger and cost, and the chief limit to the speed. He approves of the triangular sleeper originally invented by Reynolds, and he proposes to use a modification of that on a larger scale as a longitudinal bearing. He also proposes that the breadth of the rail should be so increased as to diminish the continual attrition so destructive to wheels, and procure greater durability. In the conclusion of the paper he suggests that an experimental railway ought to be constructed, either at the expense of the government, or of the joint railways, for ascertaining the best means for giving the increased velocity which the public are beginning to demand in the best manner. The paper gave rise to a long and interesting discussion, which elicited the opinions of engineers and scientific men present on the merits of Mr. Bodmer's plan. The principle on which his engines are constructed were approved by all who spoke on the subject, and the thanks of the meeting were unanimously accorded to the author. The next paper read was a sequel to the former by the same author, on improved crank axles and axle-boxes, by which greater security and economy are obtained in railway trains running at high velocities. There were other papers on the list of the evening, one of them containing a valuable discovery, by Mr. Nott, on the nature of the photographic rays, and a method by which a great improvement is effected in Daguerreotype pictures; but the length and interest of the discussion rendered it necessary to postpone that and the other communications to a future meeting. The meeting was crowded and deeply interesting, and augurs well for the prosperity of the Society under the new regime.

LIABILITY OF APPLICANTS FOR RAILWAY SHARES.

The following case has been submitted to the Solicitor-General and Mr. Pitt Taylor :—

CASE.

The opinion of counsel is requested on the following case :—

Among the numerous railway projects we have selected three, which we will call the A, B, and C Railways.

The Provisional Committees, in advertising these lines, set forth the advantages to be derived, and then give the following form of request to be made by applicants for shares :—

THE "A" RAILWAY FORM OF APPLICATION FOR SHARES.

TO THE PROVISIONAL COMMITTEE OF THE "A" RAILWAY.

"Gentlemen,—I request you will allot me ——— shares of 20*l.* each in this Company, and I agree to accept the same, or any smaller number which may be allotted to me, to pay the deposit thereon, and execute the Parliamentary Contract and Subscribers' Agreement when required.

"Dated this day 1845.

"Name in full	.	.	.	.	.	.
Occupation or profession	.	.	.	.	.	.
Residence	.	.	.	.	.	.
Reference	.	.	.	.	.	"

The same form of request is also given in the "B" and "C" Railways.

A gentleman named Z. filled up and signed, and sent to each of the Committees of three railways a request for fifty shares.

Shortly afterwards he received from the Secretary of railway "A" the following letter :—

"'A' RAILWAY COMPANY. Deposit, 52*l.* 10*s.*

"October 1, 1845.

"Sir,—I am directed by the Committee of Management of the 'A' Rail-

way. Company to inform you that twenty-five shares in this Company have been allotted to you, and that the deposit of 2*l.* 2*s.* per share, amounting to the above sum, must be paid to one of the undermentioned bankers on or before Wednesday, the 25th instant, or such allotment will be void.

"This letter, with the banker's receipt at foot, must be exchanged for scrip certificates upon the execution of the Subscribers' Agreement and Parliamentary Contract, which will lie for signature, &c.

"I am, Sir, &c.,

"N. M., Secretary."

Then follow the names of several bankers appointed to receive deposits.

From the "B" Railway Mr. Z. received a similar letter, signed by the Secretary of the Company, with the variation that, instead of the words "or such allotment will be void," the words "in default of which this allotment will be cancelled, and the shares disposed of to other applicants" are used.

And from the "C" Railway Mr. Z. received a letter from the Secretary of the Company as follows:—

"The Managing Committee of the 'C' Railway have, at your request, allotted you twenty-five shares of 20*l.* each, on condition that you pay a deposit of 2*l.* 2*s.* per share on or before Saturday, the 7th instant, to one of the undermentioned bankers," &c.

It will be seen that the last letter of allotment says nothing about the allotment being "void" or "cancelled," if the deposits are not paid, but makes a complete contract, on condition of the deposit being paid by a given day.

Before Mr. Z. had paid the deposits, or signed the subscription contracts or parliamentary deeds, a panic arose in the railway share market, and all or most of the new schemes having gone to a discount, he has declined to take up the shares and to pay the deposits thereon, and he has received letters from the Solicitors of the Company threatening proceedings to compel him to comply with the letters of request, and he now wishes the advice of counsel how far he is liable in respect of such letters.

FIRSTLY,

Have the Provisional Committees any and what remedy against Mr. Z. to compel him to take up the shares allotted to him, and to pay his deposits thereon, and to sign the subscribers' and Parliamentary contracts?

If you should be of opinion that the Provisional Committees have such remedy, must they sue in law or in equity?

Seeing that if the letters of request and the answers should be held to be binding contracts, do they not constitute a partnership between himself and the Provisional Committees and shareholders at large?

SECONDLY,

Referring to the terms of the letters received from the "A" and "B" Railway Committees, declaring that upon nonpayment of the deposit "the allotment will be void" in the "A" Railway, and "cancelled, and the shares disposed of" in the "B" Railway; and to the condition of payment in the "C" Railway—is it competent to Mr. Z. to elect not to comply with the terms of the letters of allotment, and thus to make void or cancel his contract; or is such election in the Committees alone?

THIRDLY,

Assuming that there is a sufficient contract in these several railways to bind Mr. Z., and that he cannot make void or cancel his engagements by noncompliance with the letters of allotment, will it be a good ground of defence to any proceedings that may be taken against him if the names of responsible and influential parties have been put upon the Provisional Committees without their knowledge or consent; or that exaggerated and untrue statements of the profits and advantages to arise to the shareholders have been published by the Committees to induce parties to subscribe for shares?

AND GENERALLY,

Be pleased to suggest to Mr. Z. any steps he may safely take to save himself from the consequences of his having made application for shares, it being more than probable that neither of the said lines will be able to carry their said Bills through Parliament.

THE SOLICITOR-GENERAL'S OPINION.

With respect to the first question submitted for our opinion, we are unable to say how far the prospectus which had been issued by each Company may qualify or affect the contract entered into between Z. and the Provisional Committee of each Company; but if such prospectus be legal and conformable to, and authorize the contract, Z. is bound by his agreement. It is a contract to become a partner to the extent of twenty-five shares in a co-partnership recognised by law.—See 7 and 8 Vict. c. 110, Joint-Stock Company Act.

Many and great practical and technical difficulties, however, would surround and impede any attempt to enforce the contract, either at law or in equity. At law every contracting party must be a co-plaintiff; and who are the contracting parties, or promisers, must in each case depend upon the prospectus and advertisements, and other matters preceding and attending the contract. In equity, too, the plaintiffs must name in their bill for specific performance all the persons with whom the defendant has contracted to enter into partnership, and must further allege and prove that all such persons are ready and willing to become his co-partners. Many other difficulties must also arise, whichever course be adopted, and we cannot see how either could be ultimately successful.

SECOND QUESTION.—The election as to forfeiture or cancellation would be in the Company, and not in Z., who would not be allowed to take advantage of his own breach of the agreement.

THIRD QUESTION.—It would be a good defence to any action that the names of responsible and influential persons had been published as Directors or shareholders, when, in fact, they were unconnected with the project, if it could be shown that Z. knew of such publication, and was induced thereby to apply for shares. Whether exaggerated or untrue statements would vitiate the contract depends upon the nature of such statements. If they were untrue to the knowledge of those who made them, and were material, and calculated to mislead, and if, moreover, the purchaser had, either wholly or in part, been induced by them to enter into the contract, they would amount to a fraud, whereby such contract would be vitiated.

FOURTH QUESTION.—We advise Z. to remain quiescent, and if any legal proceedings be instituted against him to defend himself.

Temple, Dec. 6, 1845.

FITZROY KELLY.
J. PITT TAYLOR.

SALE AND TRANSFER OF SCRIP.

THE following is the opinion of Mr. Addison, of the Northern Circuit, on this subject:—

QUESTIONS.

“Whether the 7th and 8th Victoria, chap. 110, sec. 26, prohibits the sale of scrip in railway companies not registered under the act, or only registered provisionally?”

“Whether such prohibition is limited to subscribers and persons actually possessed of scrip at the time, or extends to all contracts for sale of scrip prior to complete registration; whether the contracting party is, or professes to be, possessed of the scrip at the time of the contract or not?”

“Would a contract made prior to complete registration for procuring a transfer of scrip after registration, or of shares, after the passing of the railway act, be binding?”

OPINION.

"I am of opinion that the statute 7th and 8th Victoria, c. 110, sec. 26, prohibits the sale of scrip, or any interest in shares, in all companies the formation of which shall have commenced after the 1st of November, 1844, (including railway companies, and whether provisionally registered or not,) before such companies have obtained a certificate of complete registration according to the provisions of that act. The prohibition does not extend to companies formed, or begun to be formed, before that day.

"I think the prohibition extends to every sale or disposal of any interest in any share, whether the party selling is possessed of the scrip or not at the time, or whether it be for an immediate transfer of scrip, or for a transfer of scrip to be postponed until the certificate of complete registration shall have been obtained, or for a transfer of shares after the act shall have been obtained.

"I have had considerable doubt as to whether the 26th section applies to railway companies; but, after a careful perusal of the different clauses of the act, I think it does. It certainly is not expressly applied (sect. 2) to companies formed for the purpose of executing works under the authority of an act of Parliament. And the whole machinery of the section is more applicable to other companies, more particularly the former part of it. But the registration sections by 'special provision' extend to railway companies (see sections 4, 7, and 9); and the restrictions contained in the latter part of the 26th section, as to the sale of shares, is part of the registration enactment, being for the purpose of encouraging and enforcing the complete registration. There would seem also the same reason and necessity for applying the restriction to railway projects as to others. And further, the clause is expressly applied to all companies the formation of which shall commence after the 1st of November, 1844.

"Temple, Nov. 1, 1845."

"JOSEPH ADDISON."

RAILWAY MEETINGS.

DIRECT LONDON AND EXETER RAILWAY COMPANY.

A MEETING of the shareholders of the above projected company was held, Monday 15th, at the London Tavern, for the purpose of hearing a statement of the present condition of its affairs.

Sir Brace Chichester was called to the chair.

One of the solicitors for the company read the following report:—

"The Committee of Management of the Direct London and Exeter Railway, as now constituted, are anxious at the earliest period to present to the subscribers that full and fair statement of the affairs of the company which they promised in the advertisement issued by the board, dated 22d of November last, and which they deem peculiarly necessary from the present situation of affairs.

"It will be recollected that the project of the Direct Exeter Railway Company was to afford an independent and integral communication from London to Exeter, in contemplation of an extension to Falmouth.

"That such a proposition was most favourably received by the public is evidenced by the single fact that in one year 400,000 applications for shares were made to the company.

"Prospectuses were issued to raise a capital for this purpose, consisting of 120,000 shares of 25*l.* each, with a deposit of 1*l.* 7*s.* 6*d.* per share. An amount less than required by some companies, but the benefit of which was secured to the public in consequence of the registration of the project previous to the alterations made in August last by the standing orders of the House of Lords.

"In so gigantic an undertaking especial caution was necessary in not

prematurely encountering the charges of a detailed survey of the entire line.

"The committee were, however, encouraged by the favourable reception which the scheme met with from the public; and bearing in mind that any further delay would render it impossible to prepare the undertaking for parliament in the ensuing session, and looking to the fact that an immense amount of shares had been applied for, felt themselves justified in directing the engineer to proceed on the necessary surveys of the line, and in taking other measures requisite for the parliamentary deposit.

"No allotments were issued till the middle of October; at that time an allotment committee was constituted, and they issued only 58,000 shares.

"In stating this fact, the present committee cannot refrain from expressing their deep regret at a proceeding which has been fraught with considerable mischief to the interests of the company; for it unfortunately happened that at the period when this small issue of allotments was made, a sudden depression was felt in the money market, which has affected indiscriminately the most promising and legitimate prospects, as well as those of an opposite character.

"Such was the effect of this panic, that of the 58,000 shares allotted, 34,440 remain yet unpaid.

"The committee trust that, in the performance of their duty to the shareholders in general by collecting the deposits from those who have in answer to their applications received allotments of shares and not yet paid thereon, the unpleasant necessity will not be imposed on them of compelling the fulfilment of the contract on the part of the applicants.

"The committee are prepared to allot the remaining shares after their present statement shall have been given to the public, if they be encouraged to do so by the present meeting.

"The surveys, plans, books of reference, and other necessary documents have been completed and deposited, and although in three instances, owing to unforeseen accidents, the deposits were not made till after 12 o'clock at night of the 30th November, the directors are advised and feel most confident that under the peculiar circumstances of the case the deposits will be held by parliament as sufficient; and the committee are desirous to impress upon the shareholders that, unless the scheme be wholly abandoned, their surveys and documents are available assets.

"The amount of labour required within a limited time for completing the surveys to Exeter will be so manifest, that it will be evident the extension to Falmouth could not be attempted for the present, even if it were considered desirable to incur expense in so doing.

"The engineer reported most favourably of a peculiar line through Cornwall, which was only postponed in consequence of the manifest impracticability of its being duly prepared in the coming session.

"It will, however, be borne in mind, that the extension is only postponed, not abandoned; on the contrary, the committee is advised that the line intended to be adopted at a later period is superior to any other hitherto projected or proposed, and one which they hope to be enabled to carry into execution hereafter.

"The committee have further to refer, with satisfaction, to the deposits of the plans and sections for a branch line from Staines to Windsor, which they think will present strong claims for support, from its peculiar features of perfect accommodation to the Court, the towns of Windsor and Eton, and the College, without interfering with the domains of the Crown; and the committee call the attention of the public and the shareholders to the fact, that the real substantial merit of the direct line which they have proposed, remains not only undisturbed and incontrovertible, but confirmed by the testimony of their rivals, inasmuch as the Great Western, as well as the South Western, have been compelled to project, in self-defence, a sort of quasi direct line to Exeter.

"The directors have thought it due to the subscribers to put before them the facts relating to their proceedings, and the present position of the affairs of the company, and to assure the proprietors that from the most perfect investigation of the line, and from the reports of their engineer, they have unabated confidence in the intrinsic merits of the undertaking, and, in spite of the casualty to which they have alluded, trust that a vigorous effort will be made to carry it forward, and to prevent the vast amount of labour and expense already bestowed upon it from being entirely thrown away.

"Lastly, this committee are extremely desirous that it should be distinctly understood, that whether the measure be carried on forthwith or postponed till next session, no further expenses can or shall be incurred by those who have already paid their deposits."

After considerable discussion, a resolution was moved to the effect that the chairman, Dr. Phillimore, and Mr. Chambers, be requested to form a committee of management, with power to add to their numbers, and that they be authorized to issue shares to the extent required for the parliamentary deposit, upon the condition that if the necessary amount were not subscribed the whole of such deposit should be returned, and that whatever steps were taken should be without expense beyond the money in hand, and that the committee prepare a statement of the company's accounts, and send a copy to every shareholder.

SHEFFIELD AND MANCHESTER.

AMALGAMATION TERMS OF SPECIAL MEETING, HELD DEC. 3.

1. With the Sheffield and Lincolnshire Junction Railway Company, the Great Grimsby and Sheffield Junction Railway Company, the Grimsby Docks Company:—Amalgamation at par, the shares to be paid up in full. Until the opening of the lines throughout, the income of the Sheffield and Manchester line to be divided amongst its shareholders. The shareholders of the other companies to receive, during the same time, 5 per cent. out of capital on monies paid up by them. The profits from partial openings to go to the credit of capital. The Sheffield and Manchester Company to appoint eight directors. The Sheffield and Lincolnshire Company to appoint three directors. The Great Grimsby and Sheffield Company to appoint three directors. The Grimsby Docks Company to appoint two directors.

2. With the Huddersfield and Manchester Railway and Canal Company:—Amalgamation at par, the shares to be paid up in full. The shareholders in the Huddersfield and Manchester Railway and Canal Company to receive interest at 5 per cent. out of capital, on money paid up, till the opening throughout; the profits of the canal, and of partial openings of the railway during the same time, to go to the credit of capital. The Huddersfield and Manchester Company to appoint four directors.

3. With the Hull and Barnsley Junction Railway Company:—The Sheffield and Manchester Company to subscribe one-fifth of the capital of 700,000*l.* with one-fifth of the augmented capital of 350,000*l.* for extensions, being together 210,000*l.*, and to appoint two directors.

4. With the South Yorkshire Coal Railway Company:—The Sheffield and Manchester Company to subscribe one-tenth of the capital, being 100,000*l.*, and appoint one director.

5. With the Boston, Newark, and Sheffield Railway Company, and the Nottingham, Mansfield, and Midland Junction Railway Company:—The Sheffield and Manchester Company to subscribe to the extent of 3,500 shares, or 87,500*l.* *in the former*, taking also one-fourth of the capital for their Spalding branch; and to the extent of 2,000 shares *in the latter*, being 50,000*l.*; to appoint six directors (out of 13) in each company; and to take on lease both lines in perpetuity, guaranteeing 5 per cent. on the cost or $5\frac{1}{2}$

per cent. if the same be realized; and with an equal division of further profits.

6. With the Sheffield, Wortley, Silkstone, and Wakefield Company :—The Sheffield and Manchester Company to subscribe half the capital (less 1,000 shares), being 230,000*l.* To appoint half the directors, and to take the line on lease for ten years from its completion, paying $4\frac{1}{2}$ per cent. on the cost, with an equal division of further profits; and to have the option to amalgamate at par, within the ten years.

7. With the Peak-Forest Canal Company :—The Sheffield and Manchester Company purchase the canal and the property thereof, subject to its debt of 41,800*l.* and other liabilities, at a perpetual yearly rent of 9,324*l.* 18*s.*, being 3*l.* 18*s.* per share clear on the 2,391 canal shares.

8. With the Macclesfield Canal Company :—The Sheffield and Manchester Company purchase the canal and the property thereof, subject to its debt of 60,000*l.*; and of the chief rents of 150*l.*, at a perpetual yearly rent of 6,805*l.*, being 2*l.* 10*s.* per share clear on the 2,642 canal shares.

BELFAST AND BALLYMENA.

REPORT OF THE DIRECTORS TO THE FIRST HALF YEARLY MEETING, HELD NOV. 28.

The Directors have pleasure in submitting to the proprietors the first report of their proceedings, detailing the progress they have already made towards a commencement of the works.

Immediately after the Act had obtained the royal assent, the Directors instructed their engineer, Mr. Lanyon, to prepare the working plans, to enable them to advertise the contracts, separating the line into three divisions, being a distance of 35 miles, exclusive of the branch to Randalstown, as follows: First, Belfast to King's Moss, including branch to Carrickfergus, 15 miles; second, King's Moss to Antrim, 9 miles; third, Antrim to Ballymena, 11 miles.

It must be equally satisfactory to the shareholders as to the Directors to find that Mr. Lanyon, at so early a period as the beginning of October, was enabled to complete the whole plans.

The Directors are happy to state that the contract for completing the entire line has been let to Mr. Dargan, the well-known contractor, on satisfactory terms; and the Directors confidently hope that the line will be opened to the public within two years.

The necessary steps are at present being adopted to obtain possession of the land required. Contracts have already been entered into for the quantity of rails and sleepers required at present. The Directors have also entered into contracts with the respectable firms of Messrs. Bury, Curtis, and Kennedy, of Liverpool; and Messrs. Sharp, Roberts, and Co., of Manchester, for supplying locomotive engines on the most approved principles.

A first call of 2*l.* 10*s.* per share was made payable on 1st October last; and the Directors find that it has been responded to by shareholders holding stock to the amount of 5,488 shares, up to the 31st October, and, since that date, to the amount of 1,650 shares,—making in all 7,138 shares, leaving 562 outstanding, which the Directors have no doubt will be immediately paid up.

On reference to the subjoined statement of accounts, it will be observed that the expenditure in obtaining the Act has been upon the most moderate scale.

Three vacancies have occurred at your board, viz., John Thomson, George Joy, and Andrew Gihon, Esqrs., and the Directors, in pursuance of the power conferred on them by the Act, have elected the following gentlemen in their stead :—George Macartney, Esq., Lissanoure Castle; Thomas Verner, Esq., Ormeau; and B. C. Adair, Esq., of Loughanmore.

Notices have been given by a highly respectable company for a line of railway from Ballymena to Ballymoney, where it will form a junction with the projected Armagh and Portrush line, by which means the connexion between Derry and Belfast will be completed; and your Directors entertain the confident hope that Acts will be obtained for their construction, at an early period of the next session of parliament.

CAPITAL ACCOUNT TO OCTOBER 31.

Debtor.			
	£	s.	d.
Deposit on 7,700 shares, at 2 <i>l.</i> 10 <i>s.</i> per share . . .	19,250	0	0
First call paid on 5,488 shares, at 2 <i>l.</i> 10 <i>s.</i> per share . .	13,720	0	0
Interest on deposit, call and dividend on stock . . .	108	19	1
	£33,078	19	1
Creditor.			
	£	s.	d.
Surveying and engineering up to passing of Act . . .	2,137	0	1
Solicitor's bill of costs in obtaining Act . . .	2,325	7	7
Witnesses' time and expenses . . .	674	12	5
Parliamentary agents, to account . . .	800	0	0
Traffic estimates . . .	170	19	1
Land and compensation . . .	1,500	0	0
Travelling expenses, deputations, &c. . .	354	1	1
Office salaries . . .	240	0	0
Printing, advertising, and stationery . . .	446	0	3
Charges, postage, &c. . .	10	3	0
	£8,657	6	3
Balance of Exchequer bills . . .	3,560	0	0
Balance of cash in Northern Bank . . .	20,861	12	10
	£33,078	19	1

BRIGHTON AND CROYDON.

From a supplementary correspondence between the two companies, it appears that the Croydon Company has accepted the terms offered by the Brighton Company, and that the amalgamation is now fully settled.

CALEDONIAN.

Report of the Directors to the special meeting, held on the 5th of November:—

"The time having arrived when it becomes necessary to make preparations for bringing before Parliament in the ensuing session such additional works or projects as the company may think expedient, the Directors called the present meeting for the purpose of determining upon them as notified; and with that view they beg leave to offer such an explanation of each object as appears necessary to its being sufficiently understood.

"With respect to the first two, the acquisition of the Garnkirk Railway and the Clydesdale Junction Railway, these lines have always been regarded as the best mode of access of this railway to Glasgow, the former on the north, and the latter on the south side of the river Clyde, which divides that city, and also as the means of connecting the Caledonian Railway with the projected Dumbartonshire and West Highland lines, and with the various existing and projected railways in Renfrewshire and Ayrshire; and the Directors feel assured that the terms upon which they have been acquired, and which are detailed in the agreements now laid before the meeting, are such as will be profitable to the Company, even although they were viewed merely as separate investments, without reference to their utility as essential communications for the through traffic of this railway.

"The objects embraced under the third head are :—

"1. A deviation of the main line at Carlisle. This is for the purpose of reaching a joint station, which has been fixed upon by the Lancaster and Carlisle Company, and the Newcastle and Carlisle Company, as being in a very superior situation to that which was originally contemplated.

"2. Branches from Dumfries to the main line northwards and southwards, with a subsidiary branch to the port of Annan. These were suggested by the committee of the House of Commons last session, as necessary portions of the Caledonian system.

"3. A branch from the main line to Langholm, which would have a considerable traffic in minerals.

"4. Branches from the Edinburgh branch to Granton and Leith, and to Queen's Ferry and the Union Canal. The importance of the two former branches for communication with the shipping of the Forth, is obvious ; but, if satisfactory arrangements could be made, that communication might be sufficiently attained by means of a junction with the Edinburgh and Glasgow Railway, and thereby with the existing Leith and Granton Railway. The branch to Queen's Ferry will supply an advantageous connexion with the Edinburgh and Perth Railway. The branch to the Union Canal will be only about 200 yards in length, and is expected to command a considerable traffic.

"5, 6, & 7. Branches from, and improvements upon, the Polloc and Govan Railway. One of these branches is intended to lead, by means of a bridge across the Clyde, to the principal passenger train station in the centre of Glasgow, which will be one of the best in the kingdom in every respect. The others are intended to improve the connexions with the harbour and with the other railways on the south side of Glasgow, and to afford to these railways an access to the passengers' station above referred to.

"8. A branch from the Castlecary branch of this railway to the Garnkirk Railway, to shorten the distance to Glasgow for the northern traffic.

"9. Branches from the Clydesdale Junction Railway to the Garnkirk Railway, near Dundyvan and Coatbridge, which will have a very large mineral and passenger traffic.

"10. A branch from the Garnkirk Railway to Airdrie, which will also have a great traffic.

"11. Such stations as may be found necessary in connexion with the various branches.

"These are all the objects which the Directors consider it necessary at present to recommend for the approval of the meeting, in order to bring the Caledonian Railway into full operation. It has been computed that the capital which their completion will render necessary is about 1,275,000*l*. That sum the Directors propose to raise by creating one new share of 25*l*. for each original share of 50*l*. of the Consolidated Caledonian and Clydesdale Junction Railway Companies, and to allot the new shares among the shareholders of the two companies, in proportion to the original shares held by them respectively, and to issue scrip for the same on a deposit of 10 per cent. being paid, and the parliamentary contract being signed.

EDINBURGH AND GLASGOW.

REPORT OF THE DIRECTORS TO THE SPECIAL MEETING, HELD NOVEMBER 12.

The Directors have called together the proprietors, on the present occasion, for the purpose of submitting to them the various measures which have recently engaged the attention of the Board, and to which the sanction of the shareholders is now requested.

1. An amalgamation with the three Monkland Mineral Railways. These lines consist—firstly, of the Monkland and Kirkintilloch, about 11 miles in length, running from the town of Kirkintilloch southwards to Coatbridge, intersecting the Edinburgh and Glasgow line near the Kirkintilloch station.

Secondly, the Ballochney line, running from Coatbridge to Airdrie, about 6 miles long; and thirdly, the Slamannan Railway, of about 12 miles, starting from the Ballochney, and running north-eastwards, to within little more than a mile of the Avon viaduct on the Edinburgh and Glasgow line, to which it is at present in the course of being joined by the short branch called the Slamannan Junction, referred to in the recent half-yearly Report made to the proprietors.

Your Directors felt that these various lines, which are already important feeders to the mineral and passenger traffic of your railway, ought to be incorporated with it, provided an arrangement could be made on such terms as would secure you against paying for them more than their value. Your Directors are happy to state that the advances made by them to the boards of direction of these lines were met in a fair and liberal spirit. An amalgamation was agreed on; the value of the stocks to be settled by arbitration. The result of that arbitration, which will be proceeded with so soon as you confirm the bargain, will, there is no doubt, from the great respectability of the arbiters, be entirely satisfactory to all parties. In the mean time, an agreement has been entered into for carrying into immediate effect the above arrangement, so far as your present corporate powers enable this to be done; and this agreement will be submitted to you for approval.

Connected with the amalgamation with these mineral lines there are two points of considerable importance, with which, although your Directors have no occasion to ask powers from the present meeting, it is proper that the shareholders should be made acquainted. The first arises from a subsidiary arrangement which subsisted between the Slamannan Railway Company and the promoters of a branch line to Borrowstounness, almost identical with the one approved of by the special general meeting of this Company, held on the 27th of May last, and for which an application is now to be made to Parliament. By acquiring a right to the Slamannan Railway, this Company has also become bound for their obligations to the promoters of this branch line; but by a reasonable payment (the amount of which is the subject of reference) they have it in their power to procure the abandonment of this rival line, and prevent the expense of a parliamentary contest.

The second point refers to the proposed Glasgow, Airdrie, and Monkland Junction Railway—a scheme for connecting Airdrie and Coatbridge as well as the surrounding mineral district with Glasgow, and particularly with the east end of the city, where most of the manufactories are situated. This line has been leased by the three Monkland mineral railways, and now falls into your possession. Your Directors consider this to be a very important acquisition. It will not only be used by the mineral traffic of the Monkland, but its terminus is likely to be of much value for the general goods traffic of your present line.

2. An amalgamation with the Scottish Central Railway.—The Directors have the satisfaction of informing the proprietors that an agreement has been concluded by which the interests of the Scottish Central line and of their own will be united. By the terms of the agreement, the stocks of the two companies are to be amalgamated at par; the central company participating in the dividend of the united concern from the time of the opening of their line throughout for public traffic; but to receive a dividend of 4 per cent. on the amount of calls paid up from the time of the opening of the portion of the line between Stirling and the junction with the Edinburgh and Glasgow line. A minimum dividend of $5\frac{1}{2}$ per cent. on the present capital of 850,000*l.* after the entire opening, is to be guaranteed by the united railways. The Scottish Central is to be allowed to create additional stock to the extent of 170,000*l.* for the purpose of completing the branches to Alloa and Crieff. This last stock is not to be guaranteed. The general management, from the time of the agreement being approved of by both companies, is to be vested in a joint board, with subordinate arrangements for the management of the separate interests of the two companies until the Scottish

Central is opened. The agreement, which has been executed on both sides, is now laid on the table. A subsidiary deed of agreement will also require to be entered into by the Directors for carrying into immediate effect the object of the parties, for which purpose the necessary power must be given by the meeting.

3. As intimately connected with the Monkland lines, your Directors have entered into an agreement to purchase the Wishaw and Coltness Railway. This line, proceeding south-eastward from the Monkland and Kirkintilloch, runs through the centre of one of the richest coal fields in Scotland. Although hitherto only very partially opened up, the traffic on this line has already paid the proprietors 6 per cent. Various extensions of the line are projected, and coal pits are in the course of being opened up, by which a rapid increase in the traffic is taking place. The traffic of the Caledonian Railway to Glasgow will also pass along the line, and every facility will continue to be afforded by this Company for its transit. Your Directors, therefore, with full confidence in the productive qualities of the line, have considered themselves amply justified in guaranteeing a fixed dividend of 52s. 6d. on the 25l. share. The agreement between the companies is now laid before the proprietors for confirmation. A subsidiary deed of agreement must also be entered into, and the Directors request the necessary authority to enable them to do so.

4. It is proposed to construct the three following branches:—A short branch from Kirkintilloch to Kilsyth. This is intended to open up a valley both populous and abounding in minerals. The consent of the landed proprietors is expected to be obtained, and the line will be of easy construction.—A branch from South Queensferry to a point on the Edinburgh and Glasgow line, near Gogar. The notices for this branch having been given, the Directors have now to apply to the proprietors for authority to make such arrangements with the promoters of the Edinburgh and Perth line, of which it forms the southern portion, as shall hereafter appear advisable.—An extension of the Campsie branch to the populous town and district of Balforn, by which a supply of coal and lime will be conveyed thither.—A branch will also be formed from Balforn, or the vicinity, to Glasgow; and, on the suggestion of the Scottish Central Company, a survey has been ordered of a line as far as Callander, in order to meet the Scottish Grand Junction line.

5. A short line, termed the Stirlingshire Direct Midland Junction, of about six miles, running from a point on the Scottish Central, near Larbert, and passing through the town of Falkirk to the Polmont station, on your line, having been projected by an independent company,—the Edinburgh and Glasgow and Scottish Central Directors, viewing the access from the north to Edinburgh as more direct by this route than by the eastern fork, which the Scottish Central are empowered under their Act to make, have entered into an agreement to purchase or lease the line. The whole outlay is not expected to exceed 100,000l., of which one-half is to be held in trust for behoof of the united companies. From the favourable nature of the line, the Directors of the two companies have guaranteed a return of 5 per cent. for the first five years, and of $5\frac{1}{2}$ per cent. thereafter. It may be added, that the expense of executing the eastern fork of the Scottish Central will thus be saved.

6. The Directors have acquired the right to the ferry at Alloa, with the ultimate object of improving the means of communication between that important district and Edinburgh and Glasgow, either by a bridge or otherwise.

7. The remaining measures pointed out in the advertisement convening the meeting, and in the parliamentary notices, chiefly refer to minor branches, and to certain alterations made, or proposed to be made, on the plans or agreements for forming, leasing, or working lines already sanctioned by the proprietors. With the details connected with these, the Directors will not trouble the meeting, except in one instance; but beg to suggest that full

powers should be given to them to alter or modify the plans or agreements as they may deem advisable. The exception referred to is that of the Edinburgh and Glasgow and Dumbartonshire Railway: with respect to which the Directors recommend that they should be authorized, if they see fit, to extend the guarantee given by the Edinburgh and Glasgow Company to a larger amount of capital than the present.

In enumerating the measure now brought under notice, the proprietors cannot fail to perceive the great advantage that must result, both to the public and to the united companies, from the various arrangements referred to. By the union with the Scottish Central, and relative schemes, on the north, and with the mineral lines on the south, a concentrated and economical system of management will be established, which, while it strengthens the position of the companies, will give greatly increased facilities of communication, at lessened expense, to the public.

The Directors would particularly call the attention of the proprietors to the excellent station accommodation which will be afforded to the inhabitants of Glasgow. In addition to the Queen Street station, situate in the heart of the city, a large and highly convenient dépôt, in conjunction with the Monkland Junction Railway, towards the east, will accommodate both the passenger and goods traffic of that quarter of the city; while a branch to Bridgeton will convey coals to the immediate vicinity of the public works in that neighbourhood. On the other hand, the proposed station at Blythwood Holm, if connected with the extensive system of railways on the south side of Glasgow, by means of a bridge over the Clyde, offers to the public the very important advantage of a great central station, in which the traffic of all the various lines of railway, converging in the western metropolis of Scotland, may be conveniently and amply accommodated in the very centre of business in that city. Your Directors do not think this object could be obtained by any other plan. It will be the policy of this Company, and of the Ayrshire Company, who are associated with them in the promotion of this scheme, to offer every facility to other railway companies wishing to avail themselves of this Grand Joint Central Terminus.

ROUEN AND HAVRE.

REPORT read at the Meeting of the Shareholders, held in Paris, on the 30th October.

"Gentlemen,—Since our last general meeting the progress of our undertaking has been sufficiently considerable, notwithstanding the variety of obstacles which it has had to encounter, to warrant us in promising you a speedy and satisfactory completion of the works; those of the passage through Rouen, which presented the greatest difficulties in the execution, are the farthest advanced.

"The earthworks are finished; the tunnels through the town are arched with masonry, and nothing now remains to be completed except the entrances.

"The works of the tunnel at Mount St. Catherine, which were retarded at the beginning by the nature of the soil and the quantity of water, are now so far advanced that they may be finished by the end of the present year. All the piers of the great bridge over the Seine are above water-mark; the centering of the arches is ready, and the laying of them has been begun; this engineering work has been managed with the greatest care, and all competent persons who have visited it, have done justice to the excellence of the apparatus and the several details of execution.

"With regard to the alarms which the movement of the earth above the tunnels has created in the minds of those who have not examined the predicament of the works in question, it is now demonstrated by the condition of the masonry that they are entirely groundless, as the roof and the walls are in a state of perfect solidity. The works upon the Rouen station in the

Rue Verte are commenced. Nothing, therefore, in this first section of the line, where such varied and considerable works are accumulated, affords any ground for apprehending the least delay in their final accomplishment by the time originally announced, the month of May 1846.

"From Rouen to Barentin, where the works have encountered difficulties of at least equal magnitude, since this section contains a tunnel of 2,200 mètres (2,400 yards) in length, two great viaducts and considerable embankments, all that remains to be done is to remove 150,000 cubic mètres of soil. In the tunnel only 20 mètres (22 yards) remain to be cased with masonry. The viaduct of Malaunay is finished. The last arch of the great viaduct of Barentin is erected, and a line of rail laid down upon the viaduct; all the bridges required for the crossing of public and private roads, with an insignificant exception, are completed.

"From Barentin to Flamanville there are no great engineering works; the cuttings in the chalk have been carried on with the greatest activity, even during the rains; only three small bridges across private roads remain to be constructed.

"From Flamanville to Bolbec great delay took place in getting possession of the land, owing to the opposition of local and private interests, and this made it for a long time impossible to decide upon the route to be adopted. But ever since the land has been delivered, operations have been carried on, night and day, with the utmost activity. In this section the soil is of a nature much less favourable to the works. The summer rains, by soaking the earth, have occasioned frequent interruptions to the earthworks; they must be abandoned for the winter, to be recommenced with renewed activity in spring. Embankments constructed during the bad season would not attain the necessary degree of solidity.

"The Rouen Company placed at our disposal, during the past season, two locomotives to facilitate the transport of soil. When the works in question are again proceeded with, we shall be able to apply the resources of our own material. The engineering operations upon this portion of the line are in a satisfactory state of progress. The foundations of thirty piers of the great viaduct of Mirville have been laid, and ten have reached the point of contact with the arches.

"From Bolbec to Havre all the cuttings are begun; but in this section only three months have elapsed since we obtained possession of the entire land. Here endless formalities and inquiries, resumed and adjourned without reason, have occasioned us a loss of much valuable time. Among other obstacles which we encountered upon this division, we shall specially call your attention presently to the difficulties raised by the town of Bolbec. The earthworks of this last section cannot be resumed with activity till the spring.

"The construction of the station at Havre is in a state of forwardness, and it is so also with the majority of the intermediate stations to the number of eleven. The stationary and locomotive stock has been ordered, and the order is now being executed in the workshops of Messrs. Allcard, Buddicom, and Co., who constructed the stock of the Rouen Company, which has stood the test of two years' service. All the rails and chairs have been delivered.

"Every part of this great work, the expeditious execution of which was demanded by such a variety of interests, has been subjected to a series of official formalities, inquests, minutes, debates, examinations, and reports, rendering it next to impossible to preserve the essential features of the best arranged plans.

"It is one continued struggle against the innumerable claims of local interest and of private interest, against the crotchets of the different functionaries who have an opinion to give upon a project regarded as a whole, when they are only acquainted with the details; and there is no other method of settling disputes than by appeal to a superior tribunal, which is

only accessible by a circuitous course, and whose decisions are fluctuating and uncertain amidst the contradictions of conflicting statements !

" All this is merely old-established form, and for this reason alone continues to subsist ; it is not the result of the state of the law previous to the establishment of railways which created the present state of things ; it is the result of the schedule of conditions annexed to the law authorizing the line, and of the official regulations, forming a sort of penal code in concessions, which holds cheap the admonitions of experience. It is in vain that more expeditious proceedings are demanded by all interests, except such as are hostile to the establishment of railways ; for these are the only ones that derive any satisfaction from a system against the abuses of which we have so much reason to lift up our voices, seeing they have caused to your undertaking an incalculable loss of time and money. In order that the present remarks may not be attributed to the discontent of minds impatient of all control or opposition, we take leave to cite a few instances.

" To ascend from the town of Rouen to the table-land of Normandy, your engineer proposed an incline of $5\frac{1}{2}$ millimètres ; one of the functionaries to whom this proposition was sent for approval was of opinion that it was contrary to the Act : a discussion ensues ; six months are lost ; when all that was necessary was to open the schedule of conditions to read that, though 5 millimètres was the limit prescribed by law, the Executive had power reserved to it to authorize inclines of still greater steepness. Some sinking took place in the earth over the tunnels of the passage through Rouen ; these movements were in a great measure attributable to the inferior quality of the soil. A superficial examination led to the belief that the tunnels had not been made sufficiently solid, and a charge of carelessness was brought against the Company. Some time after, however, the error was acknowledged ; the finished tunnels pleaded their own defence ; but in the interval enormous compensation sums were awarded against us in favour of the owners of the houses and lands adjoining the tunnels, because, forsooth, an opinion had gone abroad, under the sanction of authority, that the tunnels were ill constructed, and that the Company had omitted to take all the requisite precautions.

" A scheme was proposed for crossing the Dieppe road in the valley of Malaunay : a slight deviation from the road was necessary, in order to execute this crossing with a due regard to economy ; the authorities who have the management of the road resist ; a debate ensues, which lasts for several months, and at the expiration of that time the burden of a difficult and expensive construction is imposed upon the Company, aggravating still more the loss occasioned by the delay.

" An inquiry was opened as to the establishment of a station at Rouen. The municipal Council and the Chamber of Commerce, who cannot agree even among themselves, insist that, possible or impossible, the Company should foresee and supply all the needs of the future. In vain the Company offers the use of the stations in the Rue Verte and St. Sever for merchandize, and proposes for the service of the manufacturing valleys a station for goods in the commune of Marommès ; nothing would satisfy the prejudiced minds of the local authorities, and much valuable time was lost in barren discussion. After the settlement, so long delayed, of the questions relative to the station, the municipal authorities made a further attempt to impose upon the Company the obligation of constructing an aqueduct projected by the townspeople. After a year of debate, it was at last agreed that each party should drain off the water on his own side. At Ivetot the discussion of a private claim suspended for six months the settlement of the question of route. At Bolbec the difficulty was still greater.

" At your first general meeting held two years ago, your engineer-in-chief stated that it was impossible to pass nearer Bolbec without a great sacrifice of economy ; this was also the opinion of the different engineers of the Ponts et Chaussées, who had previously surveyed the line by the single order of the

Government; your engineer had made a slight deviation from the route marked out by M. Mallet, who had made the most recent surveys, in order to diminish, in a material degree, the expense of some works that were required. The town of Bolbec protested against this, and insisted upon the line as laid down upon the map, without any examination of the ground; in order to put an end to this dispute, which lasted for more than a year, the superior Executive decided that the Company should follow the route as fixed by M. Mallet, and from the nearest point of the town of Bolbec, should construct a branch of 1,200 mètres (1,300 yards) which should stop at the table-land, thereby leaving a distance of 1,800 mètres to be travelled over by goods and passengers coming from Bolbec. Would it not have been far better for all parties to have adopted the line that was most economical, and to have waited the establishment of a special branch to the town of Bolbec, which we proposed should be surveyed? So true is this, that during the last session this opinion was sanctioned by the vote from Fecamp to Bolbec; if this measure had been adopted all parties would have been satisfied, and the works of this section of the line might easily have been finished this year. Therefore, to plan as a whole and in its details, the construction of a railway, to which the geological structure and peculiar nature of the soil oppose the most serious difficulties—to effect all the combinations necessary for execution, to make purchases of land, to establish wood yards, to prepare materials, to superintend such various and complicated works, to cross the Seine, to pass through a town, to construct viaducts 30 mètres (33 yards) high, to pierce 6,000 mètres (6,600 yards) of tunnel, to arrange the stations, to establish the rails, the stationary and locomotive stock,—all these different parts of the execution of railways may, even under natural conditions of the most unfavourable sort, be commenced without hesitation, and carried to a successful termination almost without a single miscarriage, so only that circumstances, independent of the control of those who conduct these enterprises, do not interfere to derange their best founded calculations as to both time and expense.

"You will perceive, by the account which we have just given you of the condition of the works, that in the most difficult section, that from Rouen to Barentin, the progress is such that we are justified in promising that the whole will be completed by the 1st of May next, while from Barentin to Havre, where the execution encounters the fewest natural obstacles, notwithstanding the persevering efforts and sacrifices of your contractors, we cannot, in consequence of the delays and impediments which we have just alluded to, give you a similar assurance. These delays, besides the time which they have caused us to lose, have increased the amount of interest which we are charged to provide for you during construction; but further, they have exercised the most mournful influence upon that portion of your expenditure which alone has exceeded our estimates, the acquisition of land. This expenditure, which was calculated by M. Mallet, sectional engineer of the Ponts et Chaussées, at less than three millions (120,000*l.*), and by ourselves at four millions (160,000*l.*), taking for the basis of the estimates the purchases for the Paris and Rouen, would appear to amount to the sum of 10,000,000*f.* (400,000*l.*)

"The land for the entire line is purchased; it has been conveyed to us since the month of June; but as all the expenses are not yet ascertained, as there is still land to be purchased for the appurtenances of some of the stations, and, lastly, as the compensations to be paid for properties which have been injured by the movement of the earth above the tunnels are not yet fixed, we cannot, for the present, state the precise amount under this head of expenditure; but we have, nevertheless, calculated it in such a way as that the above limit will not be exceeded.

"The expenditure for land is to be divided into three distinct parts—1. The part common to the Rouen Company and to our own, that is to say, from the branch to the Rouen line, for a length of eight kilomètres (five miles), about

3,200,000*f.* (128,000*l.*) 2. The section from the boundary line of the commune of Rouen to the crossing of the royal road, near Harfleur, for a length of 81 kilomètres (50½ miles), 3,970,000*f.* (158,000*l.*) 3. The arrival at Havre from this last point to the Napoleon Park, where the passenger station is situate, a length of 4½ kilomètres (2¾ miles), 3,430,000*f.* (137,200*l.*) ; so that the two sections which include the passage through Rouen and the station at Havre, and whose united length amounts only to 12½ kilomètres, cost nearly double the land upon which is constructed 81 kilomètres (50½ miles), the remainder of the line.

" This comparison already shows the exceptional position in which we find ourselves placed in reference to the acquisition of land at either extremity of the line.

" In the original plans it was calculated that the town of Rouen would be crossed in every quarter by tunnels, and that consequently the indemnities to be paid to the owners of the land above these would be trifling ; but at more than one point the nature of the soil has compelled us to substitute cuttings for tunnels, and to purchase several important pieces of ground.

" In the construction of embankments in the interior of the town, we had not the use of the material won from the tunnels ; if the surplus must have been conveyed out of town, the expense of the works would have been considerably increased ; this is what led us to purchase the ground adjoining the line itself, in order to lodge the deposits there, and upon certain points, these parcels of ground have been of as great extent, and as costly as those required for the line itself. This measure, justified by economical considerations, would not have been imposed upon us otherwise than by the delays which we experienced in acquiring possession of the lands. Moreover, to the expense necessary for the establishment of the line must be added the compensations to be disbursed in consequence of the movements injuriously affecting the properties immediately above the tunnels. Unfortunately these movements were only discovered for the first time when the appropriation of land had been concluded ; and although the jury had probably taken into consideration, in fixing the damages, the chance of those accidents, there has not the less resulted to the Company an enormous expense, the exact amount whereof we cannot specify till all the different claims have been settled ; but what is certain is, that in the fixing of these indemnities the damage has almost always been in respect of the entire value of the properties, which has compelled us to purchase almost all of them, and for the resale of which we shall hereafter have to provide ; but it must not be disguised that the value of these properties has been singularly exaggerated, and that in the difficulty of precisely estimating the damage, there has been attributed to the railway what should rather have been assigned to the age and bad construction of the houses.

" One cause peculiar to the town of Rouen has aggravated these obstacles to the establishment of railroads ; although upon all occasions the extension to Havre has been announced as a work of absolute necessity, although when the establishment of the Rouen line was proposed to the Chambers, the execution of the Havre line was guaranteed by legislative enactment, the interests which may suffer from the continuation of the Paris line to the sea, have not been able to resign themselves to the situation in which the law has placed them. These interests have their principal seat in the town of Rouen. We boldly affirm that all the authorities whose protection we have had to claim, have yielded more or less to the influence of the local prejudices which has raised so many impediments to the execution of your enterprise.

* * * * *

" Out of Rouen, and on the 81 kilomètres (50½ miles) which form the intermediate section of the lands, we have encountered unfavourable feelings

on the part of juries, who have frequently raised an indemnity four or five times higher than the real value of the estate; the pretensions of the proprietors, moreover, have increased with each day's delay in the delivery of possession.

"In the third section, from Havre to Harfleur, if we have encountered sentiments somewhat less hostile to the establishment of the railway, they have unhappily remained in the theoretical state; in consequence of the completion of the Vauban Dock, and of the augmented commerce of Gravelle concentrating itself principally on or near the land destined for the railroad, we have had to pay an exorbitant price for such part as we required; and the jury, so far from taking into account and giving us the benefit of the additional value which we confer upon the lands in the neighbourhood of the railway, have added that increased value to the compensations which they award against us.

"We have a conscientious feeling of having done all that lay in our power to modify these distressing occurrences. We have chosen as our legal adviser in the acquisition of land M. Baud, whom the experience which he has acquired in this department of business recommended to our confidence. We have had much reason to congratulate ourselves on the zeal and energy which he has brought to the defence of your interests; and however excessive may be the amount disbursed for land, it is still far beneath the demands with which we have had to contend.

* * * * *

"The accounts which we are about to lay before you are brought down to the 30th of August last; although we are sufficiently informed as to the outlay which is still to be made, the large sums which have been expended since the 31st of August, and those which still remain to be paid before the general meeting about to be convoked, will exhibit a total that will enable you to appreciate more readily the correctness of our calculations. We may nevertheless signify to you now, that we shall ask your sanction to raise, by way of loan, the sums which shall be required in order to complete the undertaking; but, at the same time, we take leave to remind you that on the very threshold of our enterprise we foresaw the present deficiency. This method, which has been adopted by companies of older standing than ourselves, requires no other formality than your approval. It is a much more effectual one than the issue of shares at an uncertain value; and thanks to the development of public credit, the annual burden to be borne will be trifling when compared with your revenue.

"A law passed last session has connected two new lines with yours. It might, at first sight, appear that the Dieppe and Fécamp Railways were likely to become our rivals; but that is a very narrow view of the question, which ought not to be entertained. Your interests are not to monopolize, and already we have established with the new company relations reciprocally beneficial. If the Dieppe makes use of only a small part of your line, it must not be forgotten that the Fécamp Railway will employ your line under circumstances most advantageous to you, and that it will enable you to accommodate, in a more efficient manner, the town of Bolbec.

"We have laid before you, in all sincerity, the position of your concern, in the double point of view of the execution of works and the total amount of expenditure. What was most difficult of all, namely, the execution of the works, is now no longer uncertain. If we cannot for the present positively affirm that the opening of the line will take place in the month of May next, you may, at least, rest assured that no effort will be spared to attain this result, and that, if it cannot be obtained, the final completion will not be delayed longer than the month following. Thus, then, notwithstanding our having experienced, upon more than one point of the line, delays of several months, there will not elapse between the calculated and actual completion of works a longer period than one month; and the introduction of the enterprise into the general circle of traffic will take place a year before the date fixed by the law authorizing the concession. The position in which

you are placed by the law of concession, enables you to meet, without difficulty, the excess of expenditure which you are now to provide for.

"Government, the Rouen Company, and the town of Rouen, have, by grants amounting in all to 15,000,000*f.* (600,000*l.*), considerably lightened the burden of your engagements. This assistance, and a State loan of ten millions (400,000*l.*) which is not to be repaid till 1857, and for which your interest of 3 per cent. is not to commence till 1850, have left you at liberty to reduce by 24,000,000*f.* (800,000*l.*) the capital of a railway of 94 kilometres (58½ miles), placed in a singularly favourable situation. If you only compare this situation with that of other companies, either recently formed or now in the course of formation, you may easily perceive how well you can bear the new charge imposed upon you by circumstances over which you have no control. Neither should you leave out of consideration the large returns which are assured to you before long. The working of your line, so far as expenditure is concerned, contains few unknown elements. It is based upon the experience gained by the Rouen Company; the unity of interest which binds the two companies together will guarantee to you several important savings; and from the progressive receipts of the Rouen line you may appreciate the revenue that is in store for you.

"A question of very great importance, and one which was only recently open to controversy, that, namely, relating to the transport of merchandize, is now decided in favour of railways. Considerable reductions in the rates have, from time to time, been carried into effect by the Rouen Company, and what might have been considered as an unthinking sacrifice has become an earnest of fresh receipts. The Rouen Company, in return for such services as it receives from us, brings us a regular set of customers and usages already adopted by the commercial world. It has decided beforehand, for your benefit, all questions of doubt or difficulty that could have risen at the commencement of your undertaking.

"Independently of what relates to the joint line, we have, during the construction of your proper line, collected the most satisfactory information with regard to its specific and peculiar resources. You will find, we trust, in the results already attained, and in those which a not distant period reserves for you, ample compensation for the difficulties which you have undergone, and for the sacrifices which these have compelled you to make.

"It is with deep regret that we intimate to you the loss which we have sustained in the death of our colleague, M. Feuillant. We have, in conformity with the clause in that behalf contained in the statutes, provisionally filled his place by nominating M. E. Blount to supply the vacancy, whose experience in railway affairs recommends him to your confidence.

"We have the honour to acquaint you that the interest falling due on the 29th of January next, will be paid in the first days of February, at the banking-house of Messrs. Lafitte, Blount, and Co., at the rate of 16*f.* a share.

"We shall now lay before you the accounts, which we submit for your approval.

"Receipts and Expenditure to August 31, 1845.

	Francs.	£
"Receipts up to August 31, 1844, as approved by the general meeting on October 30, 1844 . . .	10,372,234	414,888
"Receipts from September 1, 1844, to August 31, 1845:—		
Calls	5,811,000	
Received on account from the State loan	9,000,000	
Received from the State grant	4,000,000	
Received from the town of Havre	50,000	
Interest	135,685	
	<hr/> 18,096,685	759,864
Carried forward	29,368,920	1,174,752

Brought forward	29,368,920	1,174,752
" Creditors—Transfer office, in London	1,083	
Mackenzie and Brassey, reserve account	65,103	
Emile Martin and Co., reserve account	17,941	
Hamoir, Garret, and Co., reserve account	11,115	
	<u>95,243</u>	<u>3,808</u>
	29,464,163	1,178,560
" EXPENDITURE.		
" Expenditure to August 31, 1844, as approved at the general meeting, held October 30, 1844	9,793,232	391,728
" Expenditure from September 1, 1844, to August 31, 1845:—		
General expenses of direction and furniture	163,753	6,548
Land	2,223,395	88,932
Engineering service	146,784	5,868
Rails, chairs	2,186,660	87,464
Interest to January 29, 1843	63	
" " 30, 1844	10,111	
" " 31, 1845	386,758	
	<u>396,933</u>	<u>45,876</u>
Our half of the expenses of the passage through Rouen	2,460,980	98,436
Contractors:—		
Rouen contract	3,073,728	
Pavilly ditto	1,144,907	
Yvetot ditto	1,691,662	
Harfleur ditto	1,107,669	
	<u>7,017,968</u>	<u>280,716</u>
Stations, paid to contractors	216,881	8,672
Material, paid on account	200,000	8,000
	<u>24,806,592</u>	<u>992,240</u>
" Bankers' accounts:—		
To the Bank of France, at Paris and Havre	1,037,000	
In England	182,655	
	<u>1,219,655</u>	<u>48,784</u>
" Paris and Rouen Company, due on the expenses of the passage of Rouen	3,437,916	137,516
	<u>29,464,163</u>	<u>1,178,540."</u>

PRESTON AND WYRE.

REPORT OF THE DIRECTORS TO THE HALF-YEARLY MEETING, HELD OCT. 27.

In submitting to their Proprietors the Report for the half-year last past, the Directors feel that there are very just reasons for their warmest congratulations upon the result, which shows a most satisfactory increase in the traffic over the corresponding period of 1844, amounting to 5,223*l.*, from the preceding six months, up to the 28th of February last, of 6,119*l.*, and as compared with the annual receipt to August, 1844, of 7,226*l.* Such increase your Directors feel confident will fully justify to the Company the addi-

tional expenditure in the locomotive department, caused by the provision of further accommodation rendered absolutely requisite by the growing amount of traffic. To relieve the Company of the heavy interest due upon the loan of 100,000*l.*, your Directors have taken steps to reduce the debt by capitalizing (through the issue of the half-shares) a portion amounting to 34,000*l.*, in addition to the sum of 4,000*l.* repaid upon the remaining 62,000*l.*, leaving a balance of 68,000*l.* to be reduced, according to the terms of loans, by certain periodical instalments not exceeding 4,000*l.* By the above arrangements the Directors are happy to announce that, from the 18th instant, your Company will be relieved from the annual payment of interest to the amount of 1,900*l.* Under these circumstances the Directors recommend a dividend of 12*s.* 6*d.* per share on each 25*l.* capital stock.

The attention of your Directors has, since the last half-yearly meeting, and in consequence of the improved condition of your affairs, been seriously directed to the consideration of the best course that they could advise for the fuller development of the capabilities of the line. The construction of docks necessarily forced itself on their notice, and it appeared a question of such serious importance that they determined upon consulting, for their guidance in this matter, the most eminent dock engineers of the day, Messrs. Rendel and George Bidder, whose Report will be submitted to the meeting, and a resolution proposed in accordance therewith, for your approval or rejection.

The works which have been commenced since the last half-year for supplying additional accommodation, comprise the construction of sheds for the use of the carriers, Messrs. Pickford and Co., and Messrs. Carver, with whom arrangements have been made for the conduct of their business with Ireland and Scotland through the port of Fleetwood, a double line of rails between Preston and the junction of the Lytham branch, and the electric telegraph between Fleetwood and Preston. This last work was deemed essentially requisite in consequence of the rapidly increasing traffic, and the absence of a double line throughout; the expense of which, it is conceived, may be saved, at least for the present, for so short a length, by the electric telegraph with perfect safety, and so as to secure the efficient working of the trains.

For the accommodation of passengers, and for the protection of goods, your Directors have resolved upon adopting the advice of your engineer to cover the new wharf, now completed, with a light roof, supported upon iron pillars. The cost of this work will not exceed 1,700*l.*

It is proposed further, to extend the present wharf from the termination inwards up to the main line of railway, so as to supply laying room for timber vessels out of the tideway, and also to afford suitable facilities for the loading of vessels exporting coal. Your Directors consider the present a fitting opportunity, after much deliberation, to suggest to the proprietary the advisability of their joining individually a company proposed to be formed for the purposes of general steam navigation, upon a similar plan to that adopted with such success by the South-Eastern and South-Western Railway Companies.

In contemplating the various projects for supplying internal communication by rail, your Directors are happy to announce that they have secured a friendly understanding and alliance with the Fleetwood, Preston, and West Riding Railway Company, (itself connected with various contemplated lines in Yorkshire,) whereby an opening will be supplied for a direct communication between Fleetwood and Newcastle, York, Hull, Bradford, Leeds, Halifax, and other important districts northwards, in Yorkshire and North Lancashire.

At a special meeting called for the purpose, since your last general meeting, authority was given to your Directors to apply in the ensuing session of Parliament for powers to extend your line, by a pile bridge across the river and along the coast to Lancaster, with a branch at the most suitable point of divergence, to join the Lancaster and Preston Railway at or near Gar-

stang. Such a line will give a connexion with the various projects concentrating upon Lancaster, and give to that town the benefits of the port of Fleetwood. The length of the line is about 14 miles, and will cost about 12,000*l.* per mile (including the bridge). A breadth of valuable land, to the extent of about 1,500 acres, will be inclosed, for which terms will be sought from the claimants, so as to insure its becoming the property of your Company. In order to carry out these views, the Directors propose to raise such capital as they may deem necessary by the issue of half-shares of 12*l.* 10*s.* each, to be issued *pro rata* to the shareholders of this Company.

It is with much regret that the Directors have to report the retirement of two of your Directors, viz., Messrs. Henry Newbery and David Waddington; they have filled up the vacancies by the appointment of James Hibbert Wanklyn and Edward Tootal, Esqs.

REPORT OF MESSRS. BIDDER AND BRUNDEL ON THE CONSTRUCTION OF DOCKS.

Our attention has been more particularly devoted to two positions only, which are obviously superior to all others, namely, near to the present timber pond, which would be crossed nearly in the centre by the present line of railway, and on the 'Knock,' near to Bourne's Arms Hotel. In regard to the former position, the chief advantage which presents itself is the facility of access to the existing line of railway, or the proposed deviation to avoid the timber gearing. On the other hand, the great depth of quicksand and gravel to be passed through before reaching the marl strata, both the cost of execution and the time will be rendered uncertain, owing to the contingencies which invariably beset works laid on such a foundation; besides which the tendency to the accumulation of sand between the entrance gates and the low water portion of the harbour may involve great expense and labour in the maintenance of a permanent channel for the proposed docks; nor are we prepared to give it as our opinion that the occupation of so much area (now covered with tidal water) by docks and quays may not prove injurious to the general construction of the harbour.

We feel it our bounden duty to call your most serious attention to this remark, from the apparently small circumstances which have heretofore operated on the sandbanks and shoals, threatening the extinction of the port of Fleetwood; whilst also, were the docks completed in this position, it would not preclude a rival company from constructing a railway and docks on the east side of the town, thus enabling them to compete with you in every description of traffic.

In reference to the other site, viz., on the 'Knock,' near to Bourne's Hotel, the disadvantage will be the expense of crossing the Wyre, by means of gearing and a swing bridge, in the event of the Preston and Wyre's extension to Lancaster not being proceeded with; but from the fact that the soil in this situation is composed nearly all of hard compact marl, every facility would be afforded for the expeditious and economical construction of the dock in this place, and scarcely any contingency could occur materially to affect either one or the other; the extreme steepness of the shore between the gates and the low water portion gives an assurance that the entrance channel may yet be maintained at a very trifling constant charge.

The docks once constructed in this position, and in possession of your company, would afford the greatest safety against any rival company. In the plan exhibited, we have shown a tidal dock in this place of about nine acres. We proposed a tidal dock, in the first instance, as capable of accommodating a large trade, which might be hereafter connected by a double lock with additional docks, when the trade may require such accommodation.

In the mean while we may observe that the cost of such a dock, with the gates, timber, platform in the centre, and the necessary embankment on the side for the protection of the same from the action of the sea, would not require a sum exceeding 100,000*l.*, and not more than a twelvemonth for their completion.

For the general outline of the docks on the Fleetwood side of the river we

must refer you to the plans in the possession of your engineer, Mr. S. P. Bidder.

The cost of similar accommodation to that proposed on the Fleetwood side of the harbour, could not be safely estimated at less than 200,000*l*. Briefly, therefore, it would appear that the docks on the Knock would not exceed one-half the cost of those on the Fleetwood side of the river, whilst the entrance channel could be easier maintained, much less alteration would be occasioned to the present constitution of the harbour, and greater security afforded against the operations of any rival interest. The only contingent disadvantage might be the cost of forming an independent communication with them from the present railway in the manner alluded to.

We have not alluded to the comparative results upon the house property of the town, as not being referred to us, nor properly within our province. We have only indicated the engineering advantages of the respective sites. How far the latter ought to affect your consideration we leave in your hands.

REPORT OF THE RESIDENT ENGINEER.

I beg to lay before you my report for the present half-year. The railway is in a very good condition, notwithstanding the very heavy traffic that has passed over the line this half-year, being an average of fifteen times per day—equal to thirty trains on a double line. The engines are in a very good state, and twenty new waggons have been added to the company's former stock. The new carriages for working the branches have been contracted for with Mr. Brown, of Birmingham, who has undertaken to deliver the whole before March. The works on the Lytham branch have been very much retarded by the late rains. Should the weather continue favourable, I fully expect the line will be completed in three weeks; but the station at Lytham will not be completed quite so soon. With respect to the Blackpool branch, I am informed by our solicitor that he will be able to allow me to commence in a few days. The electric telegraph is being proceeded with very rapidly, and I expect it will be ready for use betwixt Fleetwood and Poulton by Wednesday next, and the whole distance in a fortnight. I am proceeding as fast as possible in laying down the new line of rails. One mile and a half is completed, and the ballasting is ready for nearly four miles. The new warehouse, opposite the berthing of the Irish packets, is nearly completed, and the new roof over the new wharf; the berthing of the Scotch boats is now in course of erection, and will be finished in a few weeks.

MONETARY TRANSACTIONS OF THE MONTH.

OUR article on the state and prospects of railway affairs, with which we have commenced our number, renders an account of the transactions of December almost unnecessary, and we have only to add that the commencement of the month was marked by gloom and mistrust; but the clouds which hovered over the horizon seem gradually to be dispersing, and anticipations are naturally formed that the share market has seen its worst days. The shares of old established lines are recovering their value: Brighton, which were quoted at 58½, are now marked at 66. Great Western have risen, as well as some of the lines which were without sufficient reason depreciated, and even scrip has in several cases advanced. There has been evinced, not only in the London, but in the provincial markets, such a degree of animation as to lead to the hope, that property which has been neglected will again find legitimate and bona fide purchasers. The singular changes which have occurred in the political world, and which even now are enveloped in mystery, have not failed to produce their influence upon the money market, and to have caused changes of which the wary speculator has not failed to take due advantage, whilst the timid have, as is usual, been the sufferers. During the last week money has been easy in the discount market, at the same rate of interest that has lately ruled; the discount houses are, of course, discriminating in their advances, but the feel-

ings of distrust which were so generally felt, seem gradually to diminish. At the end of the year there is always much difficulty in judging of the actual position of monetary matters, but we have every reason to believe that they are in a favourable state, and although there seems a general opinion afloat that there will be large importations of foreign corn, yet it is supposed that the exchanges are not likely to be affected. The country naturally looks with anxiety to the meeting of Parliament, which is summoned for despatch of business on the 20th of January, and we have no doubt that a material alteration of the value of railway property will arise out of the measures which emanate from the legislative wisdom of the country, and our own opinion is that a great improvement will occur,

RAILWAY TRAFFIC RETURNS, FROM OFFICIAL SOURCES.

Capital and Loan.	Amount expended per last Report.	Last dividend.		NAME OF RAILWAY.	Receipts for December		Receipts since July	
		Per share.	Per cent. per annum.		1844.	1845.	1845.	1844.
£	£	£ s. d.	£ s. d.		£	£	£	£
140,000	140,782	0 12 6	2 10 0	Arbroath and Forfar	507	541	4,711	4,343
1,413,741	1,537,267	2 0 0	4 0 0	Birmingham and Gloucester ..	.....	.....	Now	69,288
—	667,823	{ 20s., 12s., 13s., 6s.6d }	4 0 0	Bristol and Gloucester .....	.....	.....	inc. in Midl.	22,180
500,000	520,640	{ 12s., 6s.6d }	2 12 0	Chester and Birkenhead	1,244	1,447	17,226	15,110
—	579,233	1 4 0	4 0 0	Dublin and Drogheda	2,776	2,497	19,197	16,716
579,000	349,736	—	9 0 0	Dublin and Kingstown	2,817	2,807	26,709	25,700
390,000	153,598	0 12 6	6 0 0	Dundee and Arbroath	969	1,020	11,540	8,223
382,000	302,118	0 10 0	2 0 0	Durham and Sunderland	2,421	2,299	16,295	17,771
4,164,621	4,090,328	{ E. 3s. N. 2s. 22s. }	E. 82s. N. M.	Eastern Counties and Northern and Eastern	15,473	26,132	147,819	109,665
1,500,000	1,686,226	1 5 0	5 0 0	Edinburgh and Glasgow	7,597	9,279	73,280	70,044
1,349,910	1,081,531	1 5 0	5 0 0	Glasgow, Paisley, and Ayr	5,580	7,235	41,258	40,798
895,966	717,643	0 5 0	2 0 0	Glasgow, Paisley, and Greenock ..	2,645	2,939	25,930	24,070
2,364,333	2,597,317	2 10 0	10 0 0	Grand Junction, included in the London and Birmingham ..	.....	394	.....	217,388
—	82,5 8	—	—	Gravesend and Rochester .....	.....	.....	.....	.....
1,720,000	1,360,076	3 0 0	6 0 0	Great North of England	6,434	.....	.....	47,554
3,160,000	7,717,043	3 4 0	8 0 0	Great Western	57,964	65,262	464,738	421,228
—	—	—	—	Hartlepool .....	.....	4,738	23,459	.....
1,522,775	1,774,331	5 0 0	10 0 0	Hull and Selby, included in the York and North Midland ..	.....	.....	.....	.....
6,412,000	6,987,065	5 0 0	10 0 0	Liverpool and Manchester, included in the Lond. and Birm. ..	83,949	127,105	471,555	439,904
1,065,000	1,077,802	0 2 0	1 4 0	London and Birmingham	2,562	2,610	26,375	16,905
2,829,070	2,653,673	1 0 0	4 0 0	London and Blackwall	14,656	16,055	144,663	125,730
—	—	—	—	London and Brighton .....	.....	.....	.....	.....
391,333	797,845	0 8 0	4 0 0	London and Croydon	1,466	3,529	41,236	14,775
2,557,000	2,620,724	1 17 6	9 0 0	London and South Western	20,227	15,619	192,497	179,992
2,000,000	1,969,062	1 0 0	5 0 0	Manchester and Birmingham ..	11,928	11,570	.....	97,888
4,023,333	3,972,899	2 16 0	8 0 0	Manchester and Leeds	19,887	16,858	179,684	.....
630,000	805,968	2 14 0	5 16 0	Manchester and Bolton, & Bury ..	3,247	3,555	22,738	22,417
5,138,000	6,287,691	3 0 0	6 0 0	Midland	26,428	60,378	432,143	261,403
1,250,000	1,137,385	—	5 0 0	Newcastle and Carlisle	6,336	5,883	45,386	45,346
—	1,156,379	1 0 0	8 0 0	Newcastle and Darlington	4,087	10,125	88,394	43,714
160,000	316,989	1 6 0	5 0 0	Newcastle and North Shields ..	1,305	1,714	10,416	10,089
—	1,060,551	3 7 6	6 15 0	N. Union & Bolton & Preston ..	5,643	4,303	44,382	41,324
600,000	432,014	0 10 0	2 0 0	Preston and Wyre	1,268	1,715	19,308	11,849
1,323,000	1,139,709	—	5 0 0	Sheffield and Manchester	2,449	4,065	30,333	17,677
3,689,277	611,073	2 6 11	—	South-Eastern and Dover	18,823	21,245	183,761	137,072
640,000	505,060	1 17 7	—	Taff Vale	3,417	4,422	27,278	21,392
800,000	358,353	0 17 6	2 15 0	Ulster	2,504	2,380	29,443	15,410
—	230,037	0 10 0	5 0 0	Yarmouth and Norwich .....	.....	.....	.....	.....
921,696	1,279,951	20s., 25s.	10 0 0	York and North Midland	8,684	17,021	91,612	73,132
FOREIGN RAILWAYS.								
1,000,000	2,082,916	—	8 0 0	Paris and Orleans	18,340	15,707	.....	137,691
1,440,000	—	0 18 0	9 1 2	Paris and Rouen	16,062	14,107	.....	136,066

RAILWAY SHARE LISTS.

•• The letter (d) signifies discount; (p) premium; (x) exclusive of dividend; and (n) exclusive of new shares.

Length Railw.	Length opened.	No. of Shares.	Amt. of Share.	Amt. paid up.	Div. p. sh. year	NAME OF RAILWAY.	London Prices.				Interp. Prices.	Leads Prices.
							Dec. 6.	Dec. 13.	Dec. 20.	Dec. 27.		
50½	—	80,000	50	2½	—	Aberdeen	£ 1p.	£ par.	£ 1p.	£ 1p.		
55	55	9,500	100	100	£1½	Armagh, Coleraine & Portrush	124	123	121	130		
—	—	9,500	25	17½	6½s.	Birmingham and Gloucester	31	31	31	33		
—	—	50	3	—	—	Ditto ½ shares (issued 7½ dis.)	1½p.	1 p.	1½p.	1½p.		
32½	—	9,500	50	20	—	Ditto ½ shares	80	80	80	87		
76	76	15,000	100	70	20s.	Ditto and Oxford Junction	5 p.	4	4½	7		
—	—	33,688	2	—	—	Brighton, Lewes, and Hastings	24	23	23	25		
37½	37½	8,000	50	30	£1½	Bristol and Exeter	3 xn.	2½xn.	2½xn.	4½xn.		
—	—	36,000	50	5	—	Ditto (New)	2½	2½	2½	2½		
—	—	—	2½	—	—	Bristol and Gloucester	2½	2½	2½	2½		
85	—	50,000	25	1½	—	Caledonian	2½	2½	2½	2½		
84	—	42,000	50	10	—	Ditto (Extension)	par.	1d.	1d.	2		
23	—	6,000	—	20	—	Cambridge and Lincoln	—	—	—	—		
—	—	65,000	20	2	—	Chester and Holyhead	—	—	—	—		
—	—	—	25	1½	—	Chichester and Brighton	—	—	—	—		
—	—	18,000	50	3	—	Churnet Valley	—	—	—	—		
—	—	—	25	1½	—	Cork and Waterford	—	—	—	—		
—	—	—	25	1½	—	Cornwall	—	—	—	—		
—	—	—	25	1½	—	Cov. Nuneaton, Birm. & Leic.	—	—	—	—		
—	—	80,000	50	2½	—	Direct Northern	—	—	—	—		
—	—	19,000	50	2½	—	Dublin and Belfast Junction	—	—	—	—		
—	—	—	50	2½	—	Dublin and Galway	—	—	—	—		
—	—	—	50	2½	—	Dundalk and Enniskillen	—	—	—	—		
50½	50½	144,000	25	14.16	4s.	Eastern Counties	204	194	20	214		
—	—	—	25	4.16	—	Ditto (New)	6½p.	6½p.	6 p.	7½		
—	—	144,000	6.13.4.	6.13.4.	—	Ditto (Perpet.) 5 per cent. No.1	2	2	2	2		
—	—	—	6.13.4.	13.4	—	Ditto Ditto, Ditto, No.2	2	2	2	2		
16½	—	4,000	50	20	—	Eastern Union	—	—	—	—		
45	—	26,000	25	1½	—	Ditto (Extension)	—	—	—	—		
46	46	18,000	50	50	£1½	Edinburgh and Glasgow	67	68	70	78		
—	—	18,000	12½	12½	5.7½	Ditto (Quarter shares)	18	18	18	19		
—	—	—	12½	5	—	Ditto (New Quarter shares)	5	5	5	6		
—	—	10,800	25	1½	—	Ely and Bedford	—	—	—	—		
123	—	20,000	50	15	—	Great S. and Western (Ireland)	5 p.	5 p.	5 p.	7 p.		
—	—	34,000	50	2½	—	Ditto (Extension)	4	4	4	6		
45	45	10,000	100	100	£3	Great North of England	210	208	208	215		
—	—	7,500	40	5	10s.	Ditto (New)	43 p.	42 p.	42	45		
—	—	—	30	9	—	Ditto (New)	37	35	35	37		
118½	118½	25,000	100	80	£4	Great Western	68	67	70	85		
—	—	25,000	50	5	£2	Ditto (Half shares)	37	36	37	44		
—	—	37,500	20	20	12½s.	Ditto (Fifths)	15	14	14½	17		
77	—	20,000	50	2½	—	Guildford, Fareham, & Ports.	par.	par.	par.	par.		
31	31	8,000	50	50	£1½	Hull and Selby	102	101	101	105		
—	—	8,000	12½	12½	8½s.	Ditto (Quarter shares)	84	84	84	94		
—	—	—	25	2	—	Ditto (Half shares)	17	16	17	20		
69½	—	16,000	50	25	—	Lancaster and Carlisle	11xn.	12xn.	13xn.	20		
—	—	—	20	32	—	Leicester and Bedford	1½p.	1½p.	1½p.	1½p.		
112½	112½	41,250	Stock	100	£5	London and Birmingham	215	211	213	225		
—	—	41,250	32	10	27s.	Ditto (Thirds)	32 p.	31	32	36		
—	—	54,450	25	2	20½s.	Ditto (Quarters)	23	23	23	26		
3	34	46,000	25	16.13.4	—	Ditto (New) and Blackwall	2½	2½	2½	2½		
—	—	—	1½	3s.	—	Ditto (New)	2½ p.	2½ p.	2 p.	2½p.		
46½	46	36,000	50	50	£1½	London and Brighton	61	60	62	64		
—	—	—	50	35	5s.	Ditto (Consolidated Eighths)	8 p.	7 p.	8 p.	13 p.		
84	84	33,000	20	13.15.9	5s.	London and Croydon	194	194	204	222		
—	—	—	20	13.4	—	Ditto (New)	—	—	—	—		
—	—	—	9	6	—	Ditto (Guaranteed) 5 per cent.	2	2	2	1 p.		
39	39	43,977	20	12.15.4	—	London and Greenwich	104	104	104	104		
—	—	11,136	20	18.17.2	10s.	Ditto (Preference)	23	23	23	24		
92½	92½	46,200	50	41.6.10	£2	London and South Western	76	74	74	78		
—	—	6,000	40	20	5s.	Ditto (Consol. Eighths)	13 p.	13 p.	13	15		
—	—	—	50	2½	—	Ditto (New)	9	9	9	12		
—	—	—	40	2	—	Ditto (New)	7	7	7	9		
185½	—	100,000	50	2½	—	London and York	14	14	14	14½		
—	—	—	50	2½	—	Londonderry and Coleraine	11	11	11	11		
96	—	10,000	50	2½	—	Londonderry and Enniskillen	par.	par.	par.	par.		
—	—	13,200	25	1½	—	Lynn and Dereham	1 p.	1 p.	1 p.	1		
—	—	8,000	25	2½	—	Lynn and Ely	1½	1½	1½	2		
31	51	13,000	100	76	49s.	Manchester and Leeds	60	55	50	62		
—	—	—	50	34	21s.	Ditto (Half shares)	30	26	23	30		
—	—	—	25	2	2s.	Ditto (Quarter shares)	15	14	13	15		
—	—	—	6½	3½	—	Ditto (Sixteenths)	6	6	6	4		
314	314	30,000	40	40	£1	Manchester and Birmingham	71xn.	71xn.	72xn.	80		
—	—	—	10	4	—	Ditto (Quarter shares)	74p.	64p.	64	8		
—	—	—	—	2	—	Ditto (New Quarter shares)	74	64	64	8		
—	—	12,500	—	22	—	Manch. Buxton, & Matlock	5	1½	2 p.	3		
130½	130½	40,000	Stock	100	£3	Midland	141	140	143	153		
—	—	—	40	2	2s.	Ditto (New)	13 p.	12 p.	13½p.	20		
48	48	9,180	Stock	100	46½s.	Ditto, Birmingham & Derby	114	110	114	127		
—	—	—	50	24	—	Midland, Great West. (Irish)	—	—	—	—		
25	25	20,000	25	25	17½s.	Newcastle & Darlington June	30 p.	30 p.	29 p.	37		
—	—	—	25	10	—	Ditto (New) Brandling	30	29	29	37		

STOCK EXCHANGE CLOSURE

RAILWAY SHARE LISTS.

79

Length miles	Length opened	No. of Shares.	Amt. of Share.	Amt. paid up.	Div. p. sh. a year	NAME OF RAILWAY.	London Prices.				Liverpool Price.	Leeds Price.
							Dec. 6.	Dec. 13.	Dec. 20.	Dec. 27.		
1	2	38,000	25	14	..	Newcastle and Berwick	7	6	£	10½		
1	2	15,000	50	2½	..	Newry and Enniskillen	1½d.	1½d.	1½d.			
1	2	24,000	25	14	..	Newark and Sheffield	4p.	4p.	par.	4p.		
1	2	22,500	25	12½	..	North British	5 x.	4½ x.	5 x.	10 x.		
1	2	14,400	50	45	£1½	Ditto (New)	3	2½p.	2½p.	4½p.		
1	2	3,135	50	30	7½s.	Northern and Eastern	66	65	65	66		
1	2	12,908	12½	12½	5½s.	Ditto (Scrip) issued 5 disc.	20	20	20	21		
1	2	..	50	22	..	Ditto (Quarter shares)	18	17½	17½	17½		
1	2	..	20	22	..	North Kent	3p.	par.	3p.	3p.		
1	2	..	20	22	..	North Staffordshire	34	2½p.	3	4½		
1	2	19,000	20	14	..	North Wales .....	..	..	..	..
1	2	..	50	1	..	Norwich and Brandon	7	6	6	8		
1	2	30,000	40	2½	..	Ditto (New)	3½	3½	3½	4		
1	2	..	50	2½	..	Oxford and Worcester	2½	1½p.	1½p.	2½		
1	2	2,600	50	50	..	Portsmouth Direct	1	1	1	1		
1	2	13,000	20	1	..	Preston and Wyre	5	5	5	6½		
1	2	35,000	20	1	..	Richmond & West End Junc.	5	5	5	6½		
1	2	28,000	25	2½	..	Rugby, W. and Tring	5½	5½	6	7 p.		
1	2	..	25	1½	..	Scottish Central	1	1	1	1½		
1	2	18,000	50	2½	..	Scottish Midland	11p.	11p.	11p.	2½		
1	2	..	20	22½	..	Shrewsbury, Wolverhampton, Dudley, and Birmingham	3	2	2	3 p.		
1	2	22,000	50	20	..	Shrewsb. & Trent Vall. Union	36	35	35	38		
1	2	50,000	50	33.2.4	10½s.	South Devon	2	2½	3	4		
1	2	..	50	8	1½s.	South Eastern and Dover	2	2½	3	4		
1	2	..	50	7	..	Ditto (New) 1st at £32, No. 1.	14	14	14	14		
1	2	..	50	2½	..	Ditto (New) £33 6s. 8d. No. 2.	3½	2 p.	2	2½		
1	2	..	30	22	..	Ditto (New) £34, No. 3	1½	1	1	1½		
1	2	..	50	2½	..	South Midland	14	14	14	14		
1	2	30,000	20	1	..	South Wales	16	14	14½	16½		
1	2	45,000	20	2	..	Staines and Richmond	par.	par.	par.	par.		
1	2	..	25	1½	..	Trent Valley	7 p.	6 p.	6 p.	8		
1	2	..	20	1	..	Trent Valley and Holyd Junc.	7	6	6	8		
1	2	..	50	2½	..	Waterford and Kilkenny	105	105	105	110		
1	2	7,500	30	20	10s.	Welsh Midland	52	51	52	55		
1	2	..	20	14	2½s.	Yarmouth and Norwich	52	51	52	55		
1	2	7,500	50	50	£2½	Ditto (New)	50 p.	50 p.	50 p.	56 p.		
1	2	6,700	25	25	£1	York and North Midland	22	21	21	26 p.		
1	2	10,400	25	25	..	Ditto (Half shares) .....	..	..	..	..
1	2	7,500	50	20	12½	Ditto, Scarborough Branch .....	..	..	..	..
1	2	..	25	14	..	Ditto, Selby .....	..	..	..	..
1	2	..	25	14	..	York and Selby .....	..	..	..	..
1	2	..	25	14	..	Ditto (Extension) .....	..	..	..	..
FOREIGN RAILWAYS.												
140	1	..	30	2	..	Bordeaux and Toulouse .....	..	..	..	par.		
96	1	75,000	20	2	..	Bordeaux, Toulouse, & Cettl. ....	..	..	..	1½p.		
..	1	..	20	2	..	Boulogne and Amiens	4p.	par.	4p.	4d.		
..	1	..	20	2	..	Central of Spain .....	..	..	..	4d.		
300	1	..	20	3	..	Dutch Rhenish	2½p.	1½p.	2½p.	3½p.		
..	1	..	20	4	..	Great Northern of France (con- stituted) .....	..	..	..	10½		
330	1	..	20	2	..	Great Paris and Lyons	4p.	4p.	4p.	1½p.		
..	1	..	20	1½	..	Jamaica Junction	1½p.	1½p.	1½	1½		
143	1	150,000	20	4	..	Louvain and Jemeppe	2 d.	2 d.	2 d.	1 d.		
..	1	..	20	2	..	Lyons and Avignon	par.	par.	par.	4p.		
..	1	..	20	4	..	Namur and Liege	1 d.	1½	1	1½		
..	1	..	20	6	..	Orleans and Vieuxon	6	6	7	7½p.		
86	1	100,000	20	4	..	Orleans and Bordeaux	4½	3½	4½	6		
330	1	20,16.8	20	4.3.4	..	Over-Yssel	2 d.	2 d.	1 d.	1½d.		
..	1	125,000	20	2	..	Paris and Lyons (Laffitte)	4p.	4p.	4p.	4p.		
..	1	..	20	2	..	Ditto (Gannerons) .....	..	..	..	..
..	1	..	20	2	..	Ditto (Callons) .....	..	..	..	..
82	82	80,000	20	20	12s.	Paris and Orleans	47	46	47	46½		
84	84	72,000	20	20	10s.	Paris and Rouen	38	37	37½	40		
..	1	..	20	2	..	Paris and Strasbourg (Ganns)	4p.	par.	4p.	4p.		
..	1	..	20	2	..	Ditto (Compe de L'est)	4p.	par.	4p.	4p.		
..	1	40,000	20	16	2 p.ct.	Rouen and Havre	10½	9½	10	12½		
..	1	..	20	2	..	Royal North of Spain	1 d.	1½	1½	1½		
..	1	21,000	20	4	..	Sambre and Meuse	1 d.	1	1	1		
..	1	24,000	14	14	6.25fr.	Strasbourg and Basle	10	10	10	10		
..	1	10,000	20	2	..	Tours and Nantes (Mackensie)	4p.	4p.	4p.	4p.		
..	1	..	20	2	..	West Flanders	1½d.	1½d.	1½	1		

No. of Shares.	ENGLISH.				No. of Shares.	FOREIGN.			
	Name of Company.	Amount of Share.	Amount paid.	Div. per c. per ann.		Name of Company.	Amount of Share.	Amount paid.	Div. per c. per ann.
		£	£	£			£	£	£
1000	Agar Wheel.....	100	5		4000	Alten.....	15	13½	
500	Anglesey.....	100	5		10000	Anglo-Mexican.....	100	100	
4000	Bedford.....	5	2½	6	3374	Ditto Subscription.....	25	25	
100	Botalack.....	175	60	400	15000	Asturian.....	20	5	
8000	Blenavon.....	50			2000	Bolano.....	150	150	
150	Brewer.....		30	35		Ditto Scrip.....	25	25	
190	Caradon Mines.....	1		80	10000	Bolivar Copper.....	20	20	
256	Caradon United.....	9		22	10000	Ditto Scrip.....	10	10	
114	Charlestown.....			300	10000	Brazilian Imperial.....	35	21	7
100	Consolidated Mines.....	1000		500	10000	Candonga.....	20	7½	
2000	Cornubian Lead.....	3		5		Ditto Registered.....		7½	
120	Comfort.....			10	10000	Cata Branca.....	10	6½	
512	Cook's Kitchen.....			10	12000	Cobre Copper.....	40	40	22½
1000	Corn Brea.....	15		130	8500	Colombian.....	55	55	
1000	Callington.....			25	1500	Ditto New.....	11	11	4½
120	Caradon Consols.....			130	10000	Conceicao.....		4	
120	Creeg Brans.....	96		80	10000	Copiapo.....	20	14	5½
100	Doleath.....			100	20000	General Mining Association.....	20	20	16
10000	Durham County Coal Company.....	37		55	5351	Mexican.....	60	50	61
120	East Pool.....	5		55	6000	Mocubas and Co. cas.....	25	25	5
94	East Wheel Crofty.....		150	400		Real Del Monte.....		28½	4½
120	East Wheel Rose.....	50	300	1000	3691	Registered.....		28½	5
512	Fowey Consols.....			100	25603	Ditto, Unregistered.....		28½	
256	Gonmens.....	1		100	1872	Ditto, Red Deben- tures.....	73½		19
240	Grambler and St. Aubyn.....			90		Ditto, Black.....	71½		17
1000	Godolphin.....			9	3548	Ditto, Red and Black.....			
100	Hanson.....	6		96		Royal Santiago de Cuba.....	25	10	17
1000	Holmbush.....	100		50	7000	St. John Del Rey.....	20	15	5½
120	Hollenbeagle.....			350		United Mexican.....	av.	28½	4½
80	Levant.....				11000				
120	Lanarth and Feustruthal.....			5	43174				
1000	Lewis.....	3							
20000	Mining Company of Ireland.....	7		13					
2000	Mark Valley.....	10		4					
70	North Roskear.....		150	50					
256	North Rose.....	20		500					
120	Par Consols.....			10					
256	Pencorse.....	20							
120	Pen Park.....	10		10					
800	South Towan.....	3		10					
256	St. Austell Consols.....	43		20					
1000	Stray Park.....		30	250					
120	South Wheel Bassett.....	5	75	450					
120	South Caradon.....	5	30	100					
120	Trethellan.....			60					
120	Trewavas.....			250					
120	Trevisky and Barrier.....	61		350					
96	Tresavean.....	10		110					
120	Tokenbury.....	50		4					
5000	Treleigh Consols.....	6	5½	9					
9600	Tamar Consols.....	10	7	14					
6000	Tin Croft.....			150					
256	Trenow Consols.....	5	2½	4					
5000	Trestell Consols.....	12		44					
120	Trewellard.....	5		800					
4000	United Mills.....			30					
100	United Mines.....			25					
6000	Wicklow Copper.....	5½							
120	Wheel Catherine.....	15							
384	Wheel Frazer.....								
120	Wheel Virgin.....								
120	West Caradon.....	40	75	350					
50	Wheel Vor.....			8					
256	West Treasury.....	10½		24					
6843	West Wheel Jewel.....			50					
120	West Trethellan.....								
120	Wheel Harriett.....			37½					
120	Wheel Henry.....	16		150					
50	Wheel Providence.....	150		600					
120	West Bassett.....	20		45					
120	Wheel Albert.....	10		17½					
120	Wheel Acland.....	10		17					
4000	Wheel Martha.....	5	2	3					

PARLIAMENT AND THE RAILWAYS.—SIR ROBERT PEEL'S "PLAN."

SIR Robert Peel brought forward a proposition on the 26th of January, which will so materially affect the prospects of all railway projects in this country, that late as the day is, we feel bound to make some observations upon the subject. Railway projectors and speculators had long been prepared for a result, which appeared to common sense inevitable, namely,—that of the enormous mass of schemes professedly intended to be brought before Parliament in the coming session, a comparatively very small proportion could possibly receive its sanction. This result would have been brought about in various ways, all depending upon the various degrees of form and substance of the projects themselves, and the sincerity with which they were brought forward. A vast number having been from the first mere premium projects, would have vanished from the market so soon as their game in premiums had been fairly played out,—and others would have failed at one or other of the stages of the standing orders' requirements, from the inability to comply with them. But even colourable compliance with the forms required by the standing orders, is no proof of the ability, much less of the intention, of the promoters to go seriously to work before Parliament. When people talk with solemn air, and alarmed faces, of the seven hundred and upwards of schemes, whose plans have been "duly deposited with the Board of Trade," they little wot of what too many of those deposits are composed, and how few of them have any pretensions to stand inspection as railway plans and sections. Again, in regard to these, how few have really and effectively complied with the subsequent requirements of the standing orders up to the present period; the serving of notices on owners and occupiers, and upon the clerks of the peace, and so forth. 'Tis true, in these matters, a considerable number of them have made believe to have complied; but their promoters, who have been in the secret all along, know how shallow has been the pretence, and how it will fall before the first glance of the Standing Orders' Committee. But more potent than all in its decimating influence will be the standing order requiring the deposit of ten per cent. in hard cash of all the estimated capital of the projected schemes. The last day for doing this, will be the 6th of February, and we think that Mr. Hudson, in the debate of the 26th ult., overstated the matter, when he calculated that of the seven hundred projects, those whose money deposits would be duly made, would represent £100,000,000. We should say that from sixty to eighty millions will turn out to be much nearer the mark.

And if this prove the case, if such be the ignoble fate of so many of the twelve hundred projects gazetted, afterwards diminished to seven hundred "duly deposited,"—what occasion for alarm, calling for the special interposition of the minister, can be said to exist? What candour is there in the minister when he talks, even at this late hour, of there being "independently of one hundred schemes actually introduced into the House, not less than 710, involving an outlay of capital to the amount of £300,000,000"?

But we must not anticipate ; we have said that the alarm upon this subject has been unnecessary and unfounded in reason ; and we are sorry to see a minister like Sir Robert Peel lending the weight of his name and position to excite that alarm, at a moment when it had begun to subside in the minds of those whom it had so long agitated. Amongst the most absurd grounds for alarm, by the way, was that at the prospect of having to pay thirty millions sterling of deposits, in hard cash, upon a certain day, into the Court of Chancery. People puzzled their brains to know whence all the money was to be got together for the purpose, and what the country would do for circulating medium during the transfer ; quite forgetting that the very difficulty of raising so much money would cure a disease, and limit the amount actually abstracted from circulation. In effect, we do not suppose that the deposits actually made by the 6th instant will exceed eight millions, and of these a large portion have been already made, by the simple process of the bankers who held the funds of the several railway companies, and who all had accounts with the Bank of England, taking care to have a sufficient credit there by a certain day, and writing certain cheques or orders to the credit of the accountant-general in Chancery for certain amounts. Whilst wisacres were talking about how this new and difficult problem in finance was to be accomplished, the thing was actually done !

And so of the great problem which was to follow, namely, how parliament would dispose of all the projects which came in proper condition before it. Last session was certainly one of fearful labour to idle gentlemen, who had nothing to do but to govern the destinies of a great nation, and we dare say many of them looked forward with dire forebodings to the labours which were to come. We have already at various times written our opinion of the manner in which these gentlemen performed their functions, from which our readers will have gathered that we do not consider a parliamentary committee exactly the fittest tribunal to decide upon competing projects involving so many elementary features, traffic and population details, questions of political economy, and above all, scientific principles and technicalities which might puzzle a senior wrangler. But at the same time they did their business according to a fashion, and whatever the result were, if not contented were resigned. There was this wholesome secret, also, in their dilatory and expensive proceedings, that it would eventually restrain reckless speculation, and limit the amount of business brought before them. The last session was certainly one of extraordinary activity, and a larger sum was perhaps voted for works of this description than ought to be abstracted from the resources of the public for such purposes in any one year. But a period of undue enterprise has been found in all other matters to be followed by one of depression, and we are satisfied that if things had been left to go on in their old course, for this year at least, we should have had no reason to complain of over-investment in railways.

Sir Robert Peel, however, thought otherwise, and on the 26th of January, introduced a proposition to restrain our energies in this particular now they are rather below par than otherwise, just as the man in the fable shut the stable door after the horse was stolen. Sir Robert Peel, if he had really thought properly of this subject, and wished to protect the funds of the innocent public, should have interposed earlier.

He must have foreseen last year, what would have been in preparation for this, and he ought to have taken measures to regulate things in time. It is rather hard to turn round upon people after they have invested their money and labour in these works, under sanction of rules solemnly prescribed for their guidance by parliament.

But we will come at once to the speech of the Right Hon. Baronet, which being a short one, we here give entire :—

"I rise," he said, "to state, on behalf of her Majesty's Government, the course which they recommend the House to adopt with respect to the railway business of the session. Her Majesty's Government have felt it to be their duty to avail themselves of the earliest opportunity of calling the attention of the House to the number of railway bills which will be brought under its consideration, and taking its opinion as to the best mode of dealing with the great question of railways. The attention of her Majesty's Government has been for some time past given to this subject. They had collected all the information upon it which they thought likely to be advantageous to the House. They have deeply considered the question, but finding that it affected so many private as well as public interests, they thought it better to appeal to the authority of the House for a committee of the House, than at once to bring forward any plan for the purpose of dealing with a subject involving so many serious difficulties. As the organ of the Government, it is my duty to appoint a select committee for this purpose. But, as I said before, her Majesty's Government is prepared to lay before them all the information which they possess to guide them in forming an opinion as to the course which ought to be pursued. The importance of the interest involved will be made apparent by my calling attention in the first instance to the number of railway bills which have been passed in the last two sessions, and the amount of capital which those bills gave power to raise. In the year 1844 forty-eight railway bills received the sanction of the legislature, authorising the levy of a capital to be expended in railways alone of 14,780,000*l.* In the year 1845, the past year, not less than 118 bills received the sanction of Parliament, and a capital of, I believe, about fifty millions was authorized to be levied. It is generally computed that it will require three years for the completion of a railway. I believe it is a matter of experience that in this part of the United Kingdom, at least, three years are generally required for the completion of a railway of any length. If, therefore, there should have been sanctioned by legislative enactment within the last two years the levy of a sum of nearly 70,000,000*l.*, I believe, for the execution of railways, it would follow that in the year 1845, about 23,500,000*l.* would have to be drawn from the capital of the country to be applied to the construction of lines of railway during that year. In the year 1847, 23,500,000*l.* would also have to be applied, which can be drawn from no other source than that I am aware of, than the one I have stated; and in the year 1848 there would have to be applied a sum of about 18,000,000*l.* Now, the sum of 23,500,000*l.* is a very large sum to be expended in one year. (Hear, hear.) It is a very large sum to be drawn from the available capital of the country. (Hear, hear.) And it appears to me that it cannot be so withdrawn without serious inconvenience to the other interests. However, these are the sums which have been established by enactment, which have received the sanction of the legislature. I now approach the consideration of the number of railway schemes which may be brought before you in the course of the present year, and in whatever proportion they may come to seek the sanction of Parliament, there can be no doubt that the cost of their execution will involve a much larger demand. Now the number of English railway plans which were deposited at the time appointed for their reception, with the Board of Trade, is 806. The number of Scotch railway plans which have been similarly deposited with the Board of Trade, is 121; and the number of Irish railway plans deposited with the Board of Trade is 88. There have been,

therefore, deposited at the office of the Board of Trade not less than 815 railway plans, which will require the consideration of Parliament in the present session. (Hear, hear.) Now, many of these are rival schemes, and therefore it is impossible that Parliament can sanction more than one of the competing lines. Several of them will fail from being found not to have complied with the requisites of the standing orders. It is probable that from other causes, the proceedings of others will be stopped—(laughter)—but still it cannot be doubted that the number of railway bills proposed for consideration in the course of the present year will far exceed the number of any former year. The railway schemes deposited at the office of the Board of Trade involve the construction of no less than 20,675 miles of railway, and the expenditure in total amount of not less than 350,000,000*l*. Making every deduction, it seems impossible to apply such an amount of capital to one object in this country, without a material derangement of other parts of the system. (Cheers.) It is therefore important that the House at an early period of the session should consider the principles that ought to govern its course on this subject. *No one can* feel more strongly than I do *the objections to an interference* with enterprise—call it speculation if you will—in order that it may not be left to private industry and spirit. I feel most favourably disposed also to the application of British capital in the forwarding of undertakings so calculated to promote the general welfare of the empire; and the question is, whether there is any sufficient reason for interference, and whether interference is justified by the principles which ought to govern Parliament. I must say, in the first place, that there is great probability, after making every deduction from the railway plans sent in to the Board of Trade for rival lines, and for schemes which will not pass the Standing Orders Committee, there will still remain such a number as to render it almost impossible that the House of Commons should devote proper attention to them, and at the same time discharge its other important duties (cheers). The pressure in the present year is much heavier than in the last, and it might be said that if the House of Commons cannot undertake the duty, it is forced to consider the fitness of finding some other tribunal. But the grave question is, whether we will permit, or rather whether we *will encourage so great an application of capital to railway schemes* (hear, hear)—whether, consistently with public advantage, it can be so applied—and whether, if applied, it would really conduce to the satisfactory carrying on of railway enterprise (hear, hear)? I have before said that the devotion of British capital to such objects, rather than to foreign schemes, is to be encouraged; but, let me ask, is it consistent with sound railway enterprise that such an enormous amount should be so applied (cheers)? I doubt it—I doubt it even for the sake of the enterprises themselves. I think that the extraordinary demand for money, for labour, and for materials, would impede the execution of the projects themselves, the estimates for which, in many instances, will be practically exceeded, and in some will turn out entirely delusive. If the parties were about to proceed in the existing state of legislation, objections of the gravest kind might be raised; but it is for Parliament to determine whether it will or will not sanction every one of these undertakings, not merely by abstinence from interference, but by direct and positive encouragement. If the plans were 600, or 500, or only treble the number of last year, I feel great doubt whether it would be in the power of the House to make satisfactory inquiries into the merits of the various schemes (hear, hear). I still more doubt whether it would be for the public advantage that there should be such a vast application of capital, such an extraordinary demand for labour, and such a diversion of both from all other objects. But, as I said before, this is a matter on which Government thinks it infinitely better to obtain the sanction of a parliamentary committee, composed of men whose opinions are entitled to the highest respect, and receiving from Government the information collected to guide its proceedings. A map has been prepared, showing the extent and direc-

tion of the railways, and in addition to this, the plans have all been classified. One class includes plans for the completion of existing lines; that is, where a line is now unfinished between the metropolis and distant parts of the country. Under another head are railways which appear to give the greatest facilities of communication between parts of the kingdom most in need of it. A third head embraces schemes connected more or less with our internal defences, such as coast lines. The Committee, therefore, upon its appointment, will be spared much labour and supplied with much information necessary for its inquiries. For these reasons I hope the House will concur in the proposal with which I shall conclude:—"That a select committee be appointed to consider what course shall be taken with the railway schemes proposed to be submitted to Parliament during the present session." In submitting this motion, I abstain from any questions relating to the standing orders, because I trust the whole subject may be left to the committee, which will make reports from time to time, by which the decision of the House will be mainly and finally guided."

We must say, and we think our readers will agree with us, that we never read a more brief and unsatisfactory an oration in connection with so important and fruitful a theme. Sir Robert set out by saying:—"I rise to state on behalf of her Majesty's Government, the course which they recommend the House to adopt with respect to the railway business of the session." Yet when his speech is ended it appears that her Majesty's Government do not recommend any course to the House upon the subject, but on the contrary, propose to appoint a select committee—a secret committee (it is afterwards stated) upon whom should devolve the responsibility of dealing with the whole question. This committee is to have the aid of a map, with the various lines constructed, sanctioned, and projected, laid down in three different colours; they are to have the advantage of some other information which her Majesty's Government have collected; they are to make the best of all these materials, and galloping over the ground at railroad speed, are expected to make "an early report, and further reports from time to time."

Now, as was asked of Sir R. Peel by an hon. member (W. Gisborne) what is to be the position of the various railway projects in the meantime? May those who have deposited their plans and their money, and done everything required of them by standing orders, proceed to bring their respective cases before Parliament in ordinary course? In reply to this Lord Granville Somerset said, "He apprehended there could be no doubt as to their being so at liberty." Why of course not, but then query the utility of so doing with a secret committee sitting, whose "reports from time to time" might with a stroke of the pen consign their bills to the tomb of the Capulets under the clerk's table? Of this state of things, so anomalous, so unjust, the following little question and answer are significantly illustrative:—

"Mr. Ricardo asked whether, if one company choose to go on under the present standing orders, and another to wait for the report of the committee, the delay so incurred would be prejudicial to the latter in passing the standing orders.

"Lord Granville Somerset *could give no opinion on the subject.* The point had never been raised.

"Mr. Ricardo: *That was why I put it.*"

It is impossible to calculate the extent of mischief and positive injustice which may be done during the uncertainty which will prevail during the deliberations of this notable committee. And when its report is made, to what weight will it be entitled? The Board of Trade Reports were laughed at and reversed; they were of no weight when they came in competition with a committee of the House having *viâd voce* evidence, in public, and with the assistance of a phalanx of counsel learned in the law. What authority will a report of a secret committee have, got up much more hastily than the reports of the Board of Trade, and with even less means of forming an accurate opinion at their disposal? 'Tis true, or probably so, for nothing seems to be certain, that they will not give an opinion between competing schemes in the same district: but there they are to limit the amount of money to be sanctioned by Parliament, and they are to point out generally the districts and directions to which it is to be allotted. And then what will be the result,—instead of competing lines, we shall have competing districts;—we shall have complaints and remonstrances from all parts of the country who are omitted from the money vote; we shall have marshalling of local interests, and local members; and endless jealousy and dissatisfaction.

We cannot at this late period of the month enter as fully as we could wish into this important subject. We have only to repeat that we disapprove of the clumsy pretence at meeting the "railway mania" difficulty, proposed by Sir Robert Peel. We condemn him and Parliament for having, by their neglect, suffered things to come to a crisis to stand in need of any such interference.

Certainly, if we were to name any one man who had given more encouragement by his authority to the unbounded railway speculation which has recently been rife, it would be Sir Robert Peel. To his memorable declaration in favour of "direct lines," we owe three-fourths of the projects he now denounces; and was not this doctrine repeated by him so little back as at the opening of the works of the Trent Valley Railway, in November last, when, after explaining how that line would shorten the distance to Manchester as per existing routes, he warned the Directors that if a *more* direct line should afterwards present itself he should feel bound to support it?

Sir Robert—Sir Robert—a little "directness" and consistency of policy would be a feature worthy of cultivation in a great statesman, if only for the novelty of the thing.

In the course of the debate on this occasion there was a proposition made for appointing a commission of inquiry upon projected railways, which is worthy of attention, and to which we shall recur in our next.

THE GAUGE QUESTION.

DURING the past month several other experimental trips have been made, both upon the broad and narrow gauge lines, with a view to aiding the Commission in their deliberations upon this important question. The ground selected on the broad gauge line was as before, from Paddington to Didcot,—that selected by the narrow gauge interests was on the York and Darlington line. These experiments have led to some striking results, as will be presently seen, apparently conclusive for the triumph of the broad gauge, but, as there are many other points besides mere speed which should be taken into consideration as elements of a purely commercial subject, which this, after all, is, we shall not be hasty in drawing any conclusions at present—our predilections in favour of the broad gauge being already pretty generally known.

These experiments have been made with loads of 200 and 400 tons respectively. Of the 200 ton trips the results were as follows:—On the Great Western the whole distance from Paddington to Didcot (fifty-one miles) was performed in 2 hours 24 minutes and 13 seconds; (another account says 2 hours 26 minutes and 49 seconds;) or, deducting 29 minutes 54 seconds lost in stoppages, the actual running time was shown, 54 minutes 7 seconds, being an average speed of 27 miles per hour. But, in order to make the parallel case between the broad and narrow gauges the more accurate, we shall restrict our observations to a similar distance on the former to that run over on the latter; namely, 43 miles. The first 43 miles on the Great Western were accomplished in 2 hours 6 minutes 39 seconds; deducting 28 minutes 9 seconds for stoppages, we have 1 hour 38 minutes 30 seconds of actual progression, or an average speed of not quite $26\frac{1}{2}$ miles per hour. The maximum speed attained was a mile in 1 minute 34 seconds, or rather more than $38\frac{1}{2}$ miles an hour. The comparison then is as follows:—On each experiment the day was equally fine, not a breath of air tending to impede the progress of either train. The broad gauge performed the 43 miles, exclusive of stoppages, in 1 hour 38 minutes 30 seconds. The narrow gauge did it in 2 hours 19 minutes 21 seconds. The average speed on the broad gauge was therefore nearly $26\frac{1}{2}$ miles an hour, that on the narrow gauge not quite $18\frac{1}{2}$ miles an hour. The maximum speed attained on the Great Western was $38\frac{1}{2}$ miles an hour, the maximum on the York and Darlington was 25 miles an hour, not so much by a mile and a quarter as the average on the Great Western.

Of the 400 ton trips, the following is the result:—

Passed.				Broad Gauge.	Narrow Gauge.	Broad Gauge.	
				Time each mile.	Time each mile.	Time gained in seconds.	Time lost in seconds.
MILES.	H.	M.	S.	M.	S.		
1 at	1	51	25				
2	1	54	44	3	10	41	0
3	1	57	20	2	36	0	16
4	1	59	35	2	15	0	5
5	2	1	45	2	10	30	0
6	2	4	4	2	19	241	0
7	2	6	29	2	25	75	0
8	2	8	47	2	18	2	0
9	2	11	3	2	16	0	6
10	2	13	30	2	27	0	17
11	2	15	58	2	28	0	8
12	2	19	10	3	12	0	32
13	2	22	14	3	4	16	0
14	2	24	47	2	33	27	0
15	2	27	10	2	23	37	0
16	2	29	19	2	9	31	0
17	2	31	26	2	7	13	0
18	2	33	32	2	6	4	0
19	2	35	37	2	5	5	0
20	2	37	42	2	5	5	0
21	2	39	46	2	4	0	0
22	2	41	56	2	10	20	0
23	2	44	8	2	12	73	0
24	2	46	25	2	17	44	0
25	2	48	38	2	13	37	0
26	2	50	50	2	12	38	0
27	2	53	18	2	28	42	0
28	2	56	0	2	42	8	0
29	2	59	24	3	24	0	54
30	3	3	10	3	46	0	66
31	3	6	18	3	8	0	28
32	3	9	15	2	57	0	22
33	3	12	28	3	13	0	38
34	3	15	38	3	10	0	20
35	3	19	4	3	26	34	0
36	3	22	20	3	16	114	0
37	3	25	5	2	45	275	0
38	3	27	32	2	27	243	0
39	3	29	50	2	18	72	0
40	3	32	0	2	20	70	0
41	3	34	24	2	14	46	0
42	3	36	44	2	20	40	0
43	3	39	12	2	28	32	0
44	3	42	45	3	33	0	13

From this it will be seen, that the time gained on the trip by the broad gauge, was 29 minutes 25 seconds, and the time lost 5 minutes

25 seconds, showing, in fact, a clear gain over the narrow gauge, in a distance of 43 miles, of 24 minutes. The average speed attained on the York and Darlington, with the 400 tons train, was something more than 19 miles an hour, the whole distance being accomplished in 2 hours 15 minutes and 20 seconds. On the Great Western, the whole distance was performed in 1 hour 51 minutes and 20 seconds, the average being upwards of 23 miles an hour.

As we said before, these figures, striking as they are, must not be received as comprising the whole question at issue, or as at all conclusive of the result in a commercial point of view. In this stage of the inquiry, perhaps, we cannot do better than put some points which are to be advanced on the narrow gauge side, in the words of its staunch advocate, in *Herapath's Journal*. This writer, by the way, like partizans generally, is not content with simply stating his case, and leaving it to impartial judges to decide—he is not even satisfied with claiming a drawn battle; but argues that upon the experiments already had, the case is exclusively decided *in favour* of the narrow gauge! This, certainly, sounds *un peu fort*, but the gentleman *may* turn out to be right, and we will not endeavour to convince him that he is wrong. Some of his arguments are certainly deserving of consideration; and as they may be supposed to comprise the strongest case which the occasion admits to be made out for the narrow gauge party, we insert them at considerable length:—

“Let us then see how the matter actually stands. The broad gauge was established for the express purpose of having more powerful engines, and taking greater loads at higher speeds. We all know the enormous expense which the engineer went to in obtaining the best levels and least curvatures, for the purpose of carrying out these objects. We should be, perhaps, quite safe in saying two to three millions of money were sunk in the mere question of gradients and corresponding curves. The broad gauge is 7 feet; the narrow, as in contradistinction it is called, is 4 feet 8 $\frac{1}{2}$. The broad gauge, therefore, is 50 per cent. wider than the narrow. If full advantage is to be derived from the breadth of the gauge, it is evident that the diameter of the boilers should be as the breadth. That is, supposing the engines to be of the same length, the capacity of the boiler should be as the square of the gauge: or, as 4 to 9 or 1 to 2 $\frac{1}{4}$. But a broader gauge will enable one to have a longer boiler, in fact, longer in the same proportion. Therefore, the capacity of the boilers on the broad and narrow gauges should be as the cube of 3 to the cube of 2; that is, as 27 to 8, or as 10 to 3 in round numbers. By so much should the power of the engines be greater on the one gauge more than on the other.

“Such ought to be the advantages of the broad gauge if it really has the merit it should have. The engines, at the least, ought to be 2 $\frac{1}{4}$ times more powerful; but it would not be unreasonable to expect that they should be more than 3 and 1-3rd times more powerful. We shall, however, presently find that their power is scarcely, if any, greater, though taken under the advantages of special experiments.

“There is however a great difficulty in comparing the engines, in consequence of the Great Western being a line with such incomparably easy curves and gradients. The line that has been selected for the narrow gauge trial is the Great North of England; a very good but a very exposed line, and possessing gradients far inferior to those on the Great Western. For example, there are on the Great North of England gradients of 14 and 11 $\frac{1}{2}$ feet a mile, ascending and descending, and one of these on a curve, while the Great

Western has no gradient exceeding 4 feet a mile, and no curve but of a very large radius. If therefore the experiments are fairly compared, these disadvantageous gradients and curves on the Great North of England should be taken into the account. So commercially should the relative cost of the two lines form an item. For if millions have been spent to attain a certain advantage in working, the cost at which that advantage is purchased is a part of the expense of the invention to which it belongs, and cannot be accounted as nothing. The cost of the Great Western is 63,000*l.* a mile, of the Great North of England under 25,000*l.*, or not half the amount.

"Doubtless the character for gradients of the Great North of England is very good, as compared with other lines, but far inferior to the Great Western. Nine, 11½, and 14 feet a mile gradients are good; but it will be observed that the least of these [9] is twice, and the greatest [14] above, 3½ times steeper than the 4 feet a mile on the Great Western. Besides, in the length (45 miles) of the Great North of England, the rise at Darlington above York is 129 feet; but in 45 miles on the Great Western towards Didcot, the rise is only 91 feet; and in the whole run (55 miles) it is only 116 feet. This difference of levels might be considered as giving an advantage to the Great North of England in the return; and so it would, but unfortunately in that return the worst gradient, on the whole line (that of fourteen feet a mile) must be ascended, and that gradient to make it still worse, happens on a curve. Though the Great North of England is a very good line, it is therefore greatly inferior to the Great Western. Take it whichever way we will, it certainly is not fair to compare maximum efforts on two lines, one of which has gradients of three and a-half times the amount of the other. For it is very obvious that a load which could be taken with facility up the one could not be taken at all on the other. The only true mode of comparison is, as we have observed, by the average of every-day work over a long period. However, we will for the present waive this point, and just glance at the facts published in our last. The experiments there given are—

Great Western engine 22½ tons.			
Miles per hour.	Tons.	Measure of work.	
52.9	x	60	= 317.40 no wind.
47.5	x	80	= 380.00 head wind.

"Both these experiments were from London to Didcot, up-hill, but with no gradient exceeding 4 feet a mile. In the first experiment the rails were wet, but in good order. We need not remark to our readers, that a thoroughly wet and a dry rail are nearly the same. The slightly wet or greasy rail is the evil.

"On the narrow gauge the two following experiments were made:—

Narrow Gauge engine 20 tons.			
Velocity.		Load.	Measure of work.
44.3	x	80	= 354.40 side wind.
48.6	x	60	= 243.00 ditto.

"These experiments were up-hill from York to Darlington.

"To each of these measures of work we must add one-eighth of itself, because the Great Western engine is one-eighth heavier than the narrow gauge. That will make the measure of the work stand thus:—

398.7 and 279.0 on the narrow gauge.
against 390.0 and 317.4 on the broad gauge.

"Here the experiments are one in favour of one, and the other of the other; and nothing decisive can be said in favour of either. But if we consider that in both of the narrow gauge experiments they had a side wind—that worst

of all winds for a train, in consequence of its driving the flanges against the rails—while the wind in the broad gauge, as if it had designed to favour them, was in one instance a head wind, and in the other a perfect calm, we must admit that both the experiments were decidedly in favour of the narrow gauge, without taking into account the disadvantage of the narrow gauge gradients and curves.

“This is the conclusion merely on the question of the engines, and has nothing whatever to do with the gauges—the principle which the broad gauge party wished to make the object and foundation of inquiry. If, then, we merely multiply the narrow gauge results by $2\frac{1}{2}$, to bring them to an equality with their competitors on the principle of the gauges, we shall have—

897.1	and	627.7
Against 380	and	317.4

“Here the effect is incomparably in favour of the narrow gauge, notwithstanding the disadvantages of gradients, curves, and exposed situation of the narrow gauge line. Had we multiplied the experiments by 10-3rds, the results would have been still worse.

“There is another experiment on each of the lines with much heavier weights, namely from Didcot to London, and from Darlington to London. But here is the gradient to be encountered on the narrow gauge line of 14 feet a mile on a curve. With these loads, which approach to the maximum power of the engines, the effect ought to be much worse; for had the narrow gauge load come up nearly to the full power of the engine, it would have happened that she could not mount the gradients at all with the load—a fact which marks the inutility of these experiments, and their uselessness as measures of the merits of the two gauges. However, we will take these experiments, and treat them as trials on the principle of the gauges. The first is an attested one on the narrow gauge. The engine drew 400 tons 19 miles an hour, which gives as a measure of the work 7,600. Increase this by $\frac{1}{4}$ th, to have the effect of an equal weight in the engines, and it becomes 8,550, which again multiplied by $2\frac{1}{2}$, to bring it to an equality of gauge, gives 19,237 as the measure of the work done. This, as we said, was an attested experiment. Against this the broad gauge say—but it is merely an *ex parte* statement—that they drew from Didcot to London—all, we believe, down hill except an easy gradient or two of 4 feet a mile—440 tons $24\frac{1}{2}$ miles an hour. This would give for the measure of the work 10,780, or a little better than one-half reduced to the same standard of gauge on the Great North of England line.

“Another experiment inferior to this is reported to have been made since; but as it is alleged some accident happened, we shall not notice it.

“So far therefore these experiments, examined in their naked truth, are all in favour of the narrow gauge. But as we have over and over repeated, results of this sort are perfectly useless in calculating the commercial relations of the two gauges. It is the every day work that is done which should be the test. We should examine what is the paying load these rivals can carry, and do carry; and at what cost to their companies. In this lie the public and the private interest, and the public and the private utility of the two systems. If the Great Western are obliged to consume 40 lbs. of coke per mile to carry their gross load, as it is said they do, and the narrow gauge perhaps 30, that alone answers the question of greater cost. But if in addition to this, the broad gauge has to carry a dead weight in carriages, as $7\frac{1}{2}$ to $4\frac{1}{2}$ on the narrow gauge, and as $4\frac{1}{2}$ to 3 in trucks and waggons; and if we consider that the dead weight is usually two or three times the paying load, there surely can be no question which is commercially the more useful system.

“To illustrate this, let us take a gross load, say 100 tons, on the Great Western, out of which the paying load will seldom exceed or equal 25

tons. Suppose however it to be 25 tons, then the dead weight will be 75 tons. Now, if this dead weight be reduced in the ratio of only 7 to 5, it will give a dead weight on the narrow gauge of $53\frac{1}{2}$ tons, which leaves a paying load of $46\frac{1}{2}$ tons to 25 on the broad gauge. Were therefore the expenses of draught in both cases the same, the narrow gauge would be able to take $46\frac{1}{2}$ tons at the same cost at which the broad gauge could take 25; that is, at very little exceeding one-half the cost.

"But the expense of haulage is not all. The expenses of porters and horses, when they use them, is increased exactly in proportion to the increased dead weight of their trucks and carriages to be moved. For example, if the dead weights of the carriages and trucks are as 7 to 5, it will take at every station and point on the line 7 men on the broad to 5 on the narrow gauge to do the business of shifting the trucks, carriages, &c., and that for about one-half the paying load, or 25 tons to $46\frac{1}{2}$.

"Now if it take the same expense to haul 25 tons on the broad gauge that it does to haul $46\frac{1}{2}$ on the narrow, and a staff besides of 7 men to 5 be wanted to answer the requirements of the load throughout the line, it is clear the narrow gauge can carry much cheaper, and still with much greater profit to themselves than the broad; and is therefore more advantageous to the public now, and will be much more so hereafter, should the Government take the railway into its own hands. We say, hence, that looking at the matter commercially—which is the only true point in which it should be looked at—the broad gauge is most undesirable for the public interests, as well as for their own proprietors. Do we want a proof of this as regards the proprietors? Look at the accounts and the dividends. It has been shown from their own figures, that honestly they could not pay above 4 per cent. out of their earnings. Indeed, as friends to the proprietary, we should advise the Great Western at once to order their engineer to change the gauge to the narrow, and if he would not do it to get another. That change we feel persuaded must be made eventually; and the sooner it is set about the better for their own sakes and the public's too."

Having given the narrow gauge champion his say, we must be permitted to observe that one portion of his own statement appears to us to go rather conclusively against his case;—namely, when he gives the broad gauge engine an advantage in power, as $2\frac{1}{2}$ to 1, over the narrow. When heavy loads are in question, this is a superiority which the narrow can never compete with. The power of an engine, as everybody is aware, depends upon the evaporating surface which the boiler is capable of presenting to the fire. The larger the dimensions of the engine, the greater the number and length of pipes can be so presented; and the writer in Herapath states that in the broad and narrow gauge engines the relative surfaces so presented are as the cube of 3 to the cube of 2, or as $2\frac{1}{2}$ to 1. We are aware that Mr. Stephenson has endeavoured to compete with the new powerful engines on the broad gauge system, by extending his surface of boilers to like proportions; but as he could not do so in width he has been obliged to do it in length; but with what success appears more than questionable. Our readers will remember that there have been several serious accidents lately on the narrow gauge lines, by reason of the engines running off the rails;—one of these actually occurred (as is very casually mentioned by Herapath) in the course of an experiment on the narrow gauge, when an extraordinary speed was sought to be attained. The engine oscillated fearfully for some time, and then jumped off the line, seriously injuring the driver, and some of the passengers. At the time it was endeavoured to be shown that the occurrence was purely fortuitous, having been caused by the breaking of

a chair. But it appeared clearly upon investigation that the oscillation had been most fearful long before the engine reached the broken chair, the rails being absolutely disfigured by it ; and that the engine went off the line after passing the broken chair. Indeed there can be little doubt that the accident was the natural result of endeavouring to force an engine of peculiar construction to a speed, wherein, with the ordinary oscillating influence, its centre of gravity was forced beyond the line of safety. This view of the case appears to be confirmed by what has come out in regard to another accident, very similar, which occurred about the same time on the Norfolk Railway ; and wherein the engine-man and stoker were killed. At the inquest in this case, Mr. Bidder, one of the most strenuous advocates of the narrow gauge, endeavoured to attribute the accident to the fact of the engineer's having suddenly shut off the steam, when coming rapidly down an incline. The effect of this, he argued, would be to stop the engine more suddenly than the rest of the train behind it, which running in upon it, would cause it to jump off the rails. This argument appears upon a little reflection very fallacious. The engine being proportionately much heavier than any other portion of the train, would have a greater *momentum* than what was behind it, and so far from being pressed upon by the latter, it would retain the power of traction as long as any portion of the train was in motion. General Pasley, in his evidence at the adjourned inquest, distinctly attributes the catastrophe to the improper structure of the engine ; and as this point is one of immense importance in connection with the question of the relative powers and advantages of the two gauges, we give an abstract of all that he said in regard to it :—

“ Coroner : Did you examine the engine ?—General Pasley : I did, and I could not find any apparent injury that could have caused the accident. From what I saw of it, it appeared to be of the best workmanship, and in a perfect state of repair.

“ Coroner : I am told that these large engines are not generally adapted to the narrow gauge.—General Pasley : My opinion is, that owing to the peculiar construction of the engines, like the one that met with the accident on the Norfolk line, they are not the most suitable to the narrow gauge, as they do not admit of great speed without danger.

“ Coroner : What description of engine was it that met with the accident ?—General Pasley : One of the most extraordinary length—of such a length as was never used on the narrow or any other gauge before. I will mention a circumstance respecting this peculiar class of engines. Some months ago there existed doubts as to the safety of express trains, and knowing that the oscillation of the carriages was a measure of danger, I determined to ride upon the engines, with a view of more easily detecting their unsteadiness. The only engine I found having such an oscillation, was one on the South Eastern Railway, of the same peculiar construction as the one that ran off the rails on the Norfolk line. I went on that engine at the rate of 44 or 45 miles an hour, and at that speed she rolled something like a ship at sea.

“ Coroner : And what does the oscillating movement indicate ?—General Pasley : The oscillation when the train is going at such a rate, implies running off the rail. I told the engine-drivers and other authorities that if they ran 50 miles an hour, like the express trains on the Great Western Railway, there was great likelihood of the engine rolling over. I have repeated that opinion to the Gauge Commissioners.

“ Coroner : What is the difference between the engines you have alluded

to and those employed on the Great Western?—General Pasley: The narrow gauge not offering so great a diameter of boiler as those on the broad. Mr. Stephenson constructed the long boiler engines to equal them in power, being four or five feet longer than those of original construction. The smoke-box overhangs the fore wheels, and the fire-box and dome the hind wheels, which will cause them to oscillate.

"Coroner: Do you think it safe for such an engine to travel at 30 or 35 miles an hour?—General Pasley: I think such an engine as the one in question can go at 30 or 35 miles an hour, and I think I have gone at 45 miles upon them; but when they approach 50 I think they are unsafe, and that is an opinion not hastily formed.

"Coroner: Then you think these long boiler engines, if they are going at a rate exceeding 40 miles an hour, are liable to oscillate, and run over the line?—General Pasley: Yes, I do think so.

"Coroner: And what is the cause, the defect in the formation?—General Pasley: It is the wheels huddled together, or the axles under the boiler that give so much overhanging dead weight at each end, which I have not found with any other engines."

From these statements in connection with the experiments already referred to, it may not be too much to say that speed and power alone considered, the broad gauge appears clearly to have the advantage on its side. It may be a question, however, whether in light traffic, which local and branch traffic generally is, and will become so more and more as extensions are carried out, whether in these cases the dead weight of the broad engine may not be a serious disadvantage in an economical point of view. Upon this consideration, which we merely at present throw out as a suggestion, we doubt very much whether absolute uniformity of gauge do turn out to be desirable upon public grounds.

THE WELSH MIDLAND RAILWAY.

WHEN in our first volume we discussed the battle of gauges, we dwelt upon the Welsh Midland line as connected with the views of the Board of Trade, rather than upon its own intrinsic merit, and we were unwilling to take any part in the contest carried on between two great interests. The time is arriving when we shall be called upon to express our own opinion upon the advantages which are likely to accrue to South Wales by the completion of an undertaking which we are now persuaded has great claims to public support. The object of the Welsh Midland Railway are—1. To bring the valleys of South Wales into unbroken communication with the northern and midland districts of England; 2. To open out the minerals of South Wales to the back country of Herefordshire, Brecknockshire, and Worcestershire; 3. To provide a means of conveying the agricultural produce of the back country—to supply the mining population of South Wales, which are now supplied from Ireland, Devonshire, &c., although the agricultural district of Brecknockshire is not separated by more than 20 miles; 4. To provide for the military defences of the mining districts, by radiating lines of

railway from the great military depôt at Brecon, to Carmarthen, Llanelli, Swansea, Cardiff, and Newport.

Supported by the chief landholders of the district through which the line is to pass, by a strong body of iron masters, with a large capital, and an energetic and determined committee, there is every prospect of success.

Amalgamations have been effected with the Brecon and Merthyr Railway, by which a communication with the Taff Vale Railway and Cardiff will be effected; with Newport, Abergavenny and Hereford, by which the port of Newport and the great mining districts of Monmouthshire will be brought into the main line at Hereford; with the Hereford and Gloucester Canal Railway, by which the port of Gloucester will be reached from the main line on its way to Worcester, at or about Ledbury.

Arrangements are also in progress for other amalgamations on terms advantageous to the interests of this company, and the Welsh Midland enters Parliament, as far as appearances go, not only without opposition, but under the proposals of Sir Robert Peel, with greater prospects of success than most others, for there is a Government Report in its favour.

GREAT WESTERN OF CANADA.

It is with considerable pleasure we learn, that the report so industriously spread of the proposed dissolution of a Company which is of such deep importance to one of our most valued colonies, is entirely without foundation. This line, which we have described in a former number, was undertaken after mature deliberation, and a rigid examination both of the favourable and unfavourable points which presented themselves; and the directors, amongst whom are some of the most influential men in the commercial and mercantile world, were fully satisfied with the prospects they saw before them when they brought the undertaking before the British public; and they have seen nothing either in the condition of foreign, of colonial, or of domestic matters, to lead them to swerve from their original determination. They feel secure in the means of meeting the expenses attendant upon the construction of a line of 245 miles in length, and they are equally sure when it is completed that the traffic will make ample return for their expenditure. An Act of the Canadian Legislature has given them authority upon which they are resolved to proceed unto completion. The whole course of the road lies within the British territory; it traverses the most populous portion of Upper Canada; it will be useful as a defence, as an ally to emigration, as well as to trade and to commerce. It would, indeed, have been a cause of deep regret had circumstances led to the abandonment of a plan well digested and properly matured; nor would the supposition have been so universally received as correct, had not individuals of high authority and considerable weight lent unintentionally their aid to disseminate this rumour. Feeling persuaded that the development of the resources of our numerous colonies depends upon the carrying out the

railway system to its fullest extent, we have received with much gratification the announcement of the directors, that they will faithfully discharge the duties that they have undertaken.

LARNE, BELFAST, AND BALLYMENA RAILWAY.

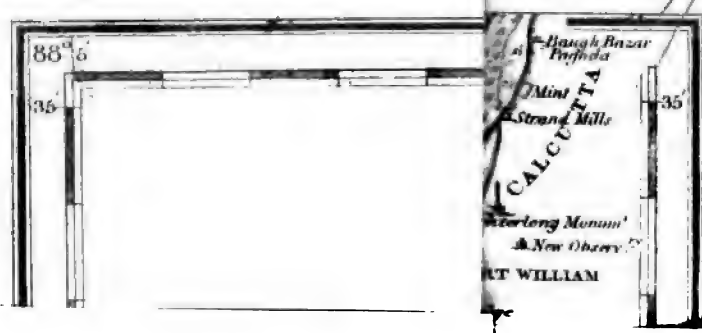
We perceive by a circular which has been issued by this Company to their subscribers, that a very prudent and important arrangement has been completed with the Belfast and Ballymena Company, by which the views and interests of both companies will be materially improved.

By the terms of this agreement this Company will be enabled to proceed with the cordial support of the Belfast and Ballymena Company for the best portion of their scheme; namely, the direct line along the coast from Larne to Carrickfergus, at which place there will be a joint station for the common use of the two companies, which, by the line now in course of construction from Carrickfergus to Belfast, by the Belfast and Ballymena Company, (who obtained their Act last session,) will, by the corresponding and co-operating interests of the Scottish railways connected with the harbour of Lochryan and Ardrossan, ensure the whole of the traffic between the north of England and Scotland, by way of Larne, to the important manufacturing districts in the north of Ireland.

The natural capabilities and resources of Larne, as a harbour, are of the most available order, as will appear by the Report of the Commissioners appointed to inquire into post-office communication in Ireland, in 1836; and it only awaits the sanction of the legislature to effect the most efficacious, and by means of its affording the quickest transit, the most eligible scheme for connecting the commercial interests of the two countries.

The petition has been presented to Parliament by this Company, and the project being supported by the united efforts of the Belfast and Ballymena Company, and favoured by the landed interests along the line, it is placed in a most promising position, and one highly advantageous to the future interests of the proprietary.

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RAILWAYS IN INDIA.—FIFTH ARTICLE.

THE CALCUTTA AND DIAMOND HARBOUR RAILWAY AND DOCKS.

AMONGST the various projects for the extension of the railway system to India, there is scarcely one which offers stronger claims to immediate and serious consideration than the above named. We may observe before proceeding further, that this company has hitherto been known under the title of Calcutta and George's Point; but that the directors have, since the first issuing of their prospectus, resolved, wisely as we think, upon restricting their operations in the first instance to Diamond Harbour. It is at this latter-named point that a most favourable roadstead exists, and it is there also that it is proposed to build the extensive docks which form an essential ingredient in this scheme. The extension to George's Point, though it might present the advantage of a landing place at a lower spot down the river, would not be accompanied with the important feature of a dock establishment; and considering the less favourable nature of the soil, would not perhaps afford an adequate increased return for the additional outlay. As it is, the line to Diamond Harbour will pass along the line of road already established, and which has been in existence for nearly half a century, traversing a cultivated district; and the swamps which lie in the neighbourhood of George's Point will not be entered upon. We believe, also, that if the line had been extended to George's Point, it would have met with some opposition from the East India Company, which there will be no ground for at present.

With regard to the value and ultimate success of this project, we have not a single doubt. The commercial advantages which it will immediately afford—the traffic ready made, which it will at once take up, ensure, in our minds, its adoption sooner or later, with profit to the shareholders and the public at large. In a word—like the Madras Railway, which is also a local and commercial line—the Calcutta and Diamond Harbour project appears to stand upon peculiar grounds, of sufficient importance to distinguish it from the general schemes of railway transit in India, and to entitle it to be excepted from the rules of policy adopted by the East India Government on the subject, as set forth in their despatch of the 7th of May last.

The project for establishing a railway from Calcutta to Diamond Harbour is by no means a new one. It has been nearly ten years under the consideration of practical men, and in 1837 received the attention of Major J. T. Boileau, of the Bengal Engineers, who made a valuable report upon the subject, fully corroborative of the views of the directors as to an undertaking "which they conscientiously believe to be one that will contribute greatly to the prosperity of the trade in India, and be most beneficial in its results to the shareholders, shipowners, merchants, commanders of vessels, and all classes of the community whose interests may connect them with our possessions in this, the most important part of India."

The passage just quoted is from a pamphlet recently issued, by Allen, of Leadenhall Street, on the subject of this project, and

having ourselves some personal interests which connect us with India, and having a considerable acquaintance with persons of the various avocations named,—as shipowners, merchants, commanders of vessels, &c.—we can fully bear testimony to the favourable opinion which they entertain of an undertaking, which will substitute for a dangerous, difficult, and expensive water-journey of two or three days, a land transit of as many hours; effecting a considerable saving, not only in time, wages, consumption of provisions, &c., but more important still, in the charges of assurance for sea-riks. From the Report of Major Boileau, already alluded to, we take the following extract:—

“It is generally allowed by those who are acquainted with the navigation of the Indian seas, that the serious dangers of a voyage to Bengal may be said to commence only on reaching the *Sand heads* at the mouth of the river Hoogly; these banks, the deposit of sand and silt, brought down by the Ganges from the interior, and by the numerous rivers of Bengal proper, tributary to the Hoogly, extending a considerable way out to sea, form a natural barrier to the entrance of the river, which is not to be passed save by threading a difficult and dangerous way through one of the few navigable channels which intersect them, and which, ever varying, require the constant vigilance of the pilot, and the almost unceasing labours of the leadsmen, to secure even to those persons whose special duty it is, an accurate knowledge of their existing state.

“To clear a channel through these sandbanks which should be free from danger throughout the year, or what might be called *permanent*, would be a work beyond the power of art, even in its present state of perfection. The system at present adopted, of ascertaining by soundings the channels most fit for navigation, must continue in force, as long as the causes which now operate in forming the sandbanks and in altering the channels continue to exist.

“But these dangers once passed, the navigation of the river becomes for a considerable distance comparatively safe; for it appears by the soundings, that from Kedgerie, passing Diamond Point and Culpee, Diamond Harbour, Buffalo Point, and nearly on to Hoogly Point, the breadth of the river at low water is about three-fourths of a mile, while the depth varies from four and a half to ten fathoms, but averaging seven fathoms.”

From the above it will appear, which must be admitted, that the proposed railway from Diamond Harbour will not avoid all the dangers and difficulties of the voyage up the Hoogly,—but at the same time it will be found that it will avert by far the most considerable of them, both as measured by extent of space, and their intensity. As the river narrows at Hoogly Point, which is just above, forming as it were an elbow adjacent to Diamond Harbour, the current becomes more rapid, the eddies stronger, and the banks more dangerous, and more difficult to avoid, sometimes impossible to avoid, even with the aid of powerful steam tugs. In the words of Major Boileau:—

“At Hoogly Point the dangers again commence, and the sands between the Dumoda and Roopnarayan rivers, particularly the celebrated ‘*James and Mary*,’ and its parallel bank, the *Scylla and Charybdis* of the Hoogly, present a serious bar to the safety of further progress. These sands at low water are quite impassable save to small craft, and it is only at high water spring tides that ships drawing eighteen to twenty feet of water can be taken across them safely. The channel at low water here is barely 300 yards broad. The eddies too at this point of the river are particularly dangerous, rendering vessels even with the aid of a steam tug at times quite

unmanageable ; and one instance (no doubt among many others of a similar kind) has come to my knowledge, in which a large ship, with a valuable cargo on board, was carried some way up the Roonarian river before she could let go her anchor, to the imminent risk of the ship and her cargo, and of the lives of the officers and crew. Instances are on record, too, which I have omitted to mention above, of vessels requiring to be careened, for the purpose of keeping their keel clear of the sands, and they were thus carried safely over the danger which might otherwise have proved fatal ; and thus only could it have been done. We find the river onward full of sandbanks, with a rapid tide, and frequent dangerous eddies ; indeed, as has been observed by Captain Andrews, in his valuable letter to the Calcutta and Sauer Railroad Company, the dangers of kedging up the Hoogly are well known to every one at all acquainted with the state of the river,—and yet it is at present an ordeal, unless under the assistance of steam at an expense of from £90 to £120 sterling each way, which every ship has to go through before she can discharge her cargo at Calcutta, a port in point of trade, becoming, if it be not so already, one of the most important in the world*. The number of ships obliged to go into dock in one year from accidents which happened to them in the river above Diamond Harbour, shows sufficiently the perils attending this part of the navigation ; and any plan that can be suggested, tending to do away with the necessity of proceeding above Diamond Harbour, by the transport of goods thence to the Presidency *by land*, and by affording to ships a secure haven to lie in while in port, by means of docks, &c., would, I am of opinion, in a speculative point of view, be highly profitable ; and as a work of great public convenience, and indeed of humanity, it would be well worthy the spirit of this great and enterprising nation."

Major Boileau then goes on to state that, although there is a safe anchorage in Diamond Harbour in seven to nine fathoms low water, yet that, as a port for the embarkation and landing of goods and passengers, it would be incomplete without the attendant feature of a dock establishment. The intelligent and gallant officer states his reasons upon this point at some length. The following, however, are the principal points of his argument, and to us, we must confess, they appear convincing :—1st, The rise of water at spring tides being fifty feet, a quay of no less than sixty feet in height would be required—a work, we need hardly say, of enormous expense, which could hardly be repaid by anything in the shape of pier-dues ; 2ndly, The rapid and tumultuous currents at this particular point, would render the discharging of a cargo in an open roadstead a work of considerable risk and expense ; whilst to bring the ship alongside the pier would expose

* In 1836, the Bencoolen East Indiaman was actually tugged on to a sandbank by a steamer which had her in tow, and the very object of which was to keep her clear of these dangers ; she lay on the bank in a most perilous situation for nearly half an hour, and it was a question whether or not the boats should be lowered, and the passengers leave her and return to Calcutta. In March, 1837, I was on board the Fergusson, homeward bound, and we left Calcutta in the morning, taking the ebb tide with us, and in tow of one of the H.E.I.C. iron (or river) steamers: the Fergusson is a heavy ship, and the steamer being light, and quite unfit for such a difficult service, it was our constant business to keep her in her place by alternately tightening and slackening the towing hawsers—indeed, instead of being steered by the steamer, we were literally obliged to steer her, trusting to Providence and to her feeble efforts to keep us in the channel ; though we had the tide with us and the assistance of steam, we were not off Diamond Harbour till noon next day. A steam tug, though it is undoubtedly of great assistance, is not always of that certain use which some suppose it to be in that part of the river between Diamond Harbour and Calcutta.

both to shocks which no materials could long stand without injury. Some notion of this ingredient of danger may be gathered from the following account of the *bore* or tide-wave of the Hoogly, which prevails at and above the locality of Diamond Harbour:—"This is an almost perpendicular *bar* or *wave*, which, extending far into the river, runs from point to point with frightful violence, carrying everything away before it; the height of this tide-wave is variously stated, but it is not within my power just now to refer to any specific account of it; those who, hearing the roaring sound of its distant warning, have seen the boats lying in-shore hurry to the middle of the river, to avoid its strength, and who have seen it sweep along the beach like a huge surf, will understand better than I can attempt to describe, the effect of this violent and resistless agent. The wave ascends with the flood tide, and though it is only at particular seasons that it rises to an alarming height, still it is sufficient for my argument that even then its effects are very severe, and would be of most dangerous consequence to ships lying along a quay or wharf."

Major Boileau observes that similar reasons for the necessity of docks exist at Liverpool and Southampton, to which we may add, in parenthesis, another important British roadstead too long neglected in this particular—we mean Portishead, on the Severn, the legitimate port of Bristol, where there is an admirable and extensive anchorage under all winds; but which, from want of a proper harbour for the shipment and landing of cargoes and passengers, and of the means of transit into the interior, has been comparatively little known, and hardly at all frequented*.

Few beyond those actually engaged in the East Indian trade, are aware of the amount of traffic which goes or comes from Calcutta, and which is now impeded by the serious dangers and losses which we have above described. Too true it is, that our public writers are so occupied with discussing the probabilities of war with America and France, that they do not consider the importance of our relations in a quarter where we have little or no ground for such apprehensions—an enormous territory, abounding with wealth, where we have everything to gain and nothing to risk by improved culture of our resources, so much as even to affording an alternative market in the one important staple of cotton alone, should hostilities with America unhappily cut off our supplies from thence. How sad it is to reflect, which we fear, however, we must do, that our rule of government in regard to our colonies is studied neglect, and that we never value them till we have lost them!

In spite of neglect, however—in spite of dangers and obstructions unparalleled in any other passage, as it were, in sight of port—the Calcutta trade has increased in a remarkable degree. Major Boileau, writing in 1837, says—"The trade (export) is yet only in its infancy, and we may expect a great increase as British capital and skill are de-

* We observe that the Bristolians are at length alive to their interests, and have taken the necessary steps for the establishment of a pier at Portishead, with a branch railway to Bristol. The rapidity of the current, however, and the height of the tide at this spot—as much as forty feet—seem to present the same objections to the mere establishment of a pier as those made by Major Boileau in the case of Diamond Harbour, and to require the addition of docks, for which the flat ground at the entrance of the Avon appears to be well adapted.

voted to the full development of the vast and various resources of the country." "The mind," he states in another place, "is lost in any attempt to grasp the limits to which, in the course of years not far distant, it may be extended." And this prophecy, in one article, that of sugar, has been fulfilled in a way and to an extent scarcely to have been contemplated by the writer himself. The exports to Great Britain of that commodity, in 1821, were about 5,642 tons, whilst in the year 1844-5 they were upwards of 50,692 tons, in addition to large exports to Bombay, Madras, the Gulf, Ceylon, New Holland, the Cape, &c.

The total amount of shipping entering and leaving Calcutta was estimated by Major Boileau, in 1837, at 1,000 vessels, averaging 300 tons each. Since then the traffic has considerably increased. But putting it still at the same number, and allowing only 100*l.* each for the expense of steam tugs, provisions, assurances, &c., in the passage from Hoogly Point to Calcutta, the existence of a mode of land transit would afford a saving in these items of 100,000*l.*, to say nothing of time, convenience, &c.

The line from Calcutta to Diamond Harbour will be about 30 miles long (the passage by the river is 63), and it is estimated that a double line of rails may be laid down upon the existing road at an expense of 6,000*l.* a mile. But the directors estimate, in round numbers, an outlay of 300,000*l.* for the railway, and 500,000*l.* for the docks.

Of the facilities which the spot offers for the construction both of railway and docks, Major Boileau gives a detailed and encouraging account. In regard to the former, he says:—

"It appears from the sheet of levels referred to above, that the surface of the road at Diamond Harbour is 12 feet above the zero of the scale; whereas the level of the Birjee Talao, on the esplanade at Calcutta, to the S.E. of the Great Jail, is barely 11 feet; the fair inference, therefore, is that the surface of the road is level. From Birjee Talao to the bonded warehouses and Government Custom House, the distance being, say $2\frac{1}{2}$ miles, the rise taken at 2 feet above the highest rise of the Hoogly, will be 4 feet, giving a gradient of 1 in 3,300. But though these may be taken as accurate levels of the extreme points of your line, the levels along the whole line from Diamond Harbour to Calcutta must be carefully taken before the work of forming the permanent way commences. The whole province of Bengal, however, is so flat, that a railroad might be carried through it in almost any direction, did not the various rivers with which it is intersected, form a barrier to such undertakings. There will not, therefore, be any reason to anticipate an unfavourable result as to the assumed levels, though it may be found that the surface of the road is not a dead flat the whole way. I am not of opinion that there will be anything to do, either in the way of embankment or excavation, which will require a special provision in the estimate; for I consider that when a causeway has had as many years to settle itself down in as the Diamond Harbour road has, it is in a state peculiarly fitted for receiving a railway, and that the less it is touched, further than in trimming its surface and slopes, the better. There will, probably, be a small expense on this account, which will be provided for as a separate item of estimate."

The estimated outlay being, in round numbers, 800,000*l.*, the directors make, on the other hand, the following calculations of receipts:—

From tonnage per railway, 613,575 tons, at 2 <i>d.</i>	
per mile	£153,393
Passengers, divided into three classes	7,500
Carried forward	£160,893

Brought forward	£160,893
From the docks, 300,000 tons, at 5s. per ton, including all fees	75,000
Profits from warehouses	20,000
	<hr/>
	£255,893
Deduct 40 per cent.	102,357
	<hr/>
Total income	£153,536

giving an average of 20 per cent. on the estimated capital.

Mr. Bagshaw, the chairman of the directors, whose long residence and connexion with India entitles his observations upon all matters connected with her trade to the highest weight, has addressed an able letter to the Honourable the Court of Directors of the East India Company, in which he urges the peculiar case of this project, and the reasons upon which he submits it should receive their immediate sanction; and we hope the appeal will prove successful. Two important circumstances to induce them are—first, that “the company is formed and complete, its shares subscribed by influential and safe parties, and *does not seek any pecuniary assistance whatever at the hands of the Court;*” and secondly, that “the difficulties inseparable generally from railways in India, from periodical rains and inundations, do not exist “in the one now under consideration,” a road having been constructed nearly half a century ago, but now in a neglected state, “which has withstood both rains and inundations.” The following reasons, which are also amongst those urged by Mr. Bagshaw, we entirely concur in:—

“Because in a short line of 30 miles, and where the whole work may be done by night, if desirable, and either by locomotive or atmospheric traction, for which the shortness of the distance affords the greatest facility, persons would be less exposed to the influence of hot and violent winds, tropical rains, or a vertical sun (so injurious to Europeans), than on a line of greater length.

“Because, by adopting the *atmospheric* system of traction, the necessity of *employing Europeans, except under shelter*, would be rendered unnecessary; experience having shown, that in the management of stationary engines, if superintended by one competent engineer to direct it, the natives of India—from the fact of so many of them having been already employed—have acquired a good knowledge of the working of steam engines.

“Because, the road being already formed, a trial of the system in India could be more readily tested by it than in any other locality—more especially by the atmospheric plan; while it would be much retarded were locomotive engines to be used, from the fact that no manufacturer could deliver engines in less than two years from this period; while, in the other case, both engines, boilers, tubes, and all appurtenances could be procured in a much less period, during which the works and buildings could be constructed.”

In addition to the name of Mr. Bagshaw, the Chairman, we may mention those of several others of the first shipowners of the country, amongst the warm supporters of this project. Mr. Duncan Dunbar, of Limehouse, and Mr. Richard Green, of Blackwall; Capt. Charles Man- gles, Capt. Denny, Capt. Probyn, of the Trinity House, and other shipowners connected with the India trade, are on the Committee of Management.

CONTINENTAL RAILWAYS.

WE open our resumé of continental railways this month, under circumstances much happier, and more gratifying, than when we last addressed our readers; everything then had a downward tendency, though in a slight degree recovered from the panic—a panic, be it observed, the results of which, in comparison with its magnitude and intensity, were very much smaller than it might have been supposed they would be. In point of fact, failures have been few; ruin, no doubt, there has been to some, but the aggregate extent of it, from all we can learn, has been comparatively trifling. The shares of the foreign lines, like those of many English ones, went down to a discount, and to a very considerable one; and some are at a discount still, and are, we fear, likely to remain so. But the good lines, those which have in them the real elements of success, and the direction of which is in the hands of able men, have almost regained their previous position in the market; and the more we reflect upon the subject, the more we are confirmed in the belief that these lines will prove a better investment than many of the hundreds which have been, and are likely to be, projected in this country.

This upward tendency has been exhibited in the Great Northern of France, the Paris and Lyons, the Boulogne and Amiens, the West Flanders, the Sambre and Meuse, and the Namur and Liège. One or two other Belgian lines have also risen slightly into favour.

As the budget is going through the Belgian Chambers nothing new has occurred in the debates relating to the Belgian lines conceded to English companies; and the most encouraging feature concerning them that has presented itself during the past month, has been the Report and the proceedings at the general meeting of the proprietors of the West Flanders lines, on the 15th ult. We think this Report, which will be found at the end of our present number, well calculated to raise the spirits of the shareholders; not because the picture is made very bright, but for the quiet tone which pervades it, and the entire absence of anything resembling puff. The address of the chairman is so satisfactory that we have transferred it to our columns, and here beg leave to lay it before our readers.

"The Chairman said, as this was the first occasion on which the directors had had an opportunity of addressing the proprietors, he would take advantage of it for the purpose of making a few observations before they proceeded to discuss the contents of the report. He thought the proprietors were entitled to have some general information given them of the principles on which the directors proposed to manage the interests intrusted to their care. He was anxious to point out to the shareholders the lines of railways which the company were constructing in the province of West Flanders, that they might become acquainted with the nature of its traffic, and the source whence the West Flanders Railways Company expected to derive remuneration for their capital. In the first place, the directors had the highest opinion of the capabilities of the undertaking, and a thorough conviction that it would amply repay those who had embarked in it. And they felt, too, that their characters were pledged to carry it out to a successful issue, if possible (cheers). Among the directors were gentlemen of considerable ex-

perience in the management of railways, and that experience had taught them the necessity of selecting for their officers, without any favouritism or friendship, gentlemen qualified to perform the duties of their respective offices (hear). It was but justice to their superintendent at Bruges, to say, that there they had a coadjutor of whom they had formed a very high opinion; a gentleman, industrious, acute, active, and methodical. He had held a very important situation in connexion with the Belgian railways, and his services could not, from his intimate acquaintance with the technicalities of business, and the railways of that country, but be most advantageous to those who were comparatively strangers to the province. The directors likewise recognised the right of every shareholder to make the most searching inquiry into the affairs of the company; and he begged to state that the proprietors would, whenever they chose to apply to the office, be afforded the fullest information they could desire. The accounts would at all times be open to inspection. He thought he might state that the principles on which the directors would manage the affairs of the company would be those of strict attention to its interests, impartiality in selection of officers, and a free communication to all the proprietors of all matters affecting their interests (cheers). The next object was to point out to the meeting the exact lines of railways in West Flanders to be constructed by the company, and a map of the country had been hung up in the room that the proprietors might the more readily follow him in the description he was about to give. They would perceive that from Bruges one line of the West Flanders Railways proceeded by Thourout to Courtrai and from Courtrai to Poperingue. There was then a cross line from Deynze on the Lys to Furnes, so that the whole of the country was occupied by this one set of railways; and he believed that no important town or large village would be unsupplied with railway accommodation. At Bruges the railway was connected with the state railway from Ostend to Ghent and Brussels; and at Deynze and Courtrai it was also connected with the state railway from Brussels to Tournay; and from any one of the points it was in their power to communicate with the whole of the district. The railway would be about eighty-nine miles in length, and was calculated to supply a population of 600,000 persons occupied in manufactures and agriculture. The manufactures were not carried on by large masses of persons collected together, but in numerous towns, the inhabitants of which worked up the produce of the country. The population was, therefore, of a description that necessarily created a deal of intercourse between different parts of the country. The land was extremely fertile, and the agriculture of the most elaborate and skilful character. The cattle were of an excellent breed, and there was an abundance of hops, corn, hemp, flax, and all that produce which indicated a grateful soil and an industrious people; and, as he had before stated, the intercourse carried on between various towns of the province was very considerable. Nothing, perhaps, was more difficult to estimate than the traffic among a people of this description; but he might observe that they had abundant evidence to show the great increase of passenger traffic in Belgium since the introduction of the railway system. Formerly but two diligences left Bruges daily, and both of them were never filled; but there was now a large passenger traffic from that town. The same increase of traffic had taken place in the agricultural districts of Belgium, through which the state railways passed; and he had no doubt that the traffic of the districts to be traversed by the lines of the company would increase in a corresponding ratio. He had great confidence in the realization of the prospect held out to the proprietors—viz., the return of 9½ per cent. upon the capital embarked in this enterprise, both from the traffic the peculiar character of these railways would command, and from the moderate cost at which the lines would be constructed. As he had already stated, they could, from Bruges, or Deynze, or Courtrai, command the whole traffic of the districts. He would now explain to them the value of the proposed extension from Courtrai to Bossuyt. The coal, which supplied

Courtrai and the surrounding district came from the Mons coalfield. It was brought by the way of the canal Condé, which fell into the Scheldt, down which it was sent to Ghent. The coal then came up the Lys to Courtrai, so that it had to go a circuitous route of 180 miles, subject to all the irregularities of river navigation, and which indeed was in this case so difficult, that an average of four voyages to Courtrai and back, was all that could be made in the year. Now, if this extension line were obtained, and there was, he thought, not much doubt about it, they would be able, by an easy canal navigation down the Scheldt, and the short railway which they proposed to lay down, to carry coal, limestone, and building stone, to the district of country requiring them. This short branch of nine miles would greatly decrease the cost of transit of these articles, and of course increase the demand for them. The quantity of coal which would be carried on the line was estimated at 200,000 tons annually. Perhaps this might be thought too high an estimate, but he believed they might reasonably expect to take 150,000 tons. Add to this the lime and building stone required by the district, and the undertaking could not be looked at but as one likely to be attended with beneficial results to the proprietors. And next with respect to the expense of constructing the line. Their original estimate was that 840,000*l.* would be sufficient for the eighty-nine miles of railway. Since then they had let one contract on the road between Bruges and Thourout, and were able to come to a decision upon the prices of the country. He must say the result had been most satisfactory, and they fully expected to be able to make the line between Bruges and Courtrai, including works and plant altogether, from between 7,000*l.* to 7,500*l.* per mile—that was, with the working stock complete. This was a distance of thirty miles. Upon referring to Mr. George Stephenson's report, he found that gentleman had stated that he considered the line between Deynze and Furnes could be made at a moderate cost. They might take this portion of the line to be constructed at the same rate; they would then have the line from Courtrai and Poperingue, some portion of which—and it was but a small portion—would perhaps cost 10,000*l.* per mile, so that they would be able to make the whole of the lines for a sum considerably below the original estimate; and they thought, if the Minister of Public Works should permit them to make the Bossuyt branch, they would be able to do it without calling upon the proprietors for further funds (cheers). He would now state to them the time in which the directors believed they would be enabled to complete their operations. They had entered into one contract, and were ready for another. The land was expropriated between Courtrai and Bruges, and they would probably be able to open a portion of the road to Thourout in May, and, no doubt, the whole line between those places in October. He then moved the adoption of the Report." This was carried unanimously.

The most important information contained in this address, is the announcement of the extension, from Bossuyt on the Scheldt, to Courtrai on the Lys. This we had previously observed in the *Moniteur Belge* of the 7th ult., by the promulgation of the "Enquête," ordered by the Minister of Public Works. This is the first step taken by the government before bringing a bill into the Chambers, and part of the formalities consists in opening a register at the town hall of the *Chef-lieu* of the province, in which the line of the proposed railway is situated, to receive the observations of such persons as may wish to express opinions, favourable or adverse, to the projected line. A committee is likewise appointed to report upon the same. At the expiration of a month from the period at which this enquête is ordered, the register is closed, and the opinion of the committee received, and the government will then be able to submit the project to the Chambers for their consideration. It has als

been announced in one of the Belgian papers, that a pamphlet, setting forth the project of a railway which is to run from Mons to Nieupoort by Tournay, *Menin*, *Ypres*, and *Dixmude*, has been distributed amongst the members of the Chamber of Commerce of Tournay, and the towns in the coal districts. The names of the towns in italics remind us that they are on the line of the West Flanders railways; and knowing as we do, that application has been made to the Belgian Chambers for a grant of this railway, and others, interfering with the rights of concessionaires in projects of the same kind conceded to English companies, we think it would be well if the Belgian government would issue some declaration of its intentions on this point, and state whether it is prepared to grant competing lines or not. If it does not make known the course it has determined to pursue, we think it will be acting a very unjust and improper part, as silence under such circumstances may, and will, be construed into consent, and tend considerably to weaken the confidence that English capitalists now place in the government of that country. Were this line ever conceded, it would pass through the famous field of Fontenoy.

LOUVAIN AND JEMAPPE.

After several conferences, at which it was necessary to call in the gentlemen of the long robe, a favourable termination of the difficulties existing between this company and the Grand Junction, has been at last attained. By this arrangement, the Louvain and Jemappe obtain the alteration in the tracing of their line which they wished for, and, leaving Gembloux, one line will be prolonged on the right to Charleroi, and the one on the left to Namur; but it is stipulated, that in case the concession of new lines which will require the use of one or other of these sections should take place, such companies shall have a right to use them, upon a payment so regulated that it cannot be a matter of profit to either party.

HASSELT TO ST. TROND.

A meeting of a most convivial nature, on the occasion of commencing the works on this line, took place a few weeks ago at Hasselt, at the sign of the Wine-glass. It was not in the vicinity of the château of the Minister of Public Works, or the inauguration would no doubt have been graced by the presence of that highly respected and talented gentleman, though we imagine he would scarcely have favoured the Limburgers with a specimen of his "navigating" acquirements à l'instar of those of our own Prime Minister. M. Hoffschmidt seems to have taken a less enthusiastic interest in the subject, and sent one of the engineers of the Ponts et Chaussées as his substitute. This line, which is about ten miles in length, unites the two towns of Hasselt and St. Trond, at which place it joins the government railway from Louvain to Liège. It forms part of the grant conceded between Tournay and Jurbise. The directors, Messrs. Kennard, Mackenzie, Barry, Bulot, and Bruncau, were present, as well as the notabilities of the neighbourhood. After the dinner at the Wine-glass, at which seventy persons sat down, several *speeches* were made; and when will speeches not be made where Englishmen are present? The day passed off most agreeably; and the useful results were more particularly gratifying to the poor of the neighbourhood, who are now sure of work for the winter. The report of Messrs. Stevenson and Routh upon the Jurbise line is most favourable.

This railway traverses a rich and well populated country, and the engineer of the government, in 1844, reported that it would produce 17 to 18 per cent. upon one line of rails. We have read of projected railways, and in the Pyrenees, too, in which there occurred "no engineering difficulties," but here they are *really* few; the deepest cutting is seventeen feet, the highest embankment twenty-nine, the steepest gradient 1 in 122. The contractor has up to May, 1847, to complete the works, but he hopes to be able to have them finished at Christmas next; and as he is to receive a bonus of 5,000 francs for every month of time that he saves within the stipulated period, there is every probability that he will succeed in doing so.

A commission has been ordered to sit, and report made by M. de Fosset and Company, for the concession of a line of railway from Antwerp to the Dutch frontier, passing by Maesyck, Heerenthals, Peer, Brée, with embankments from Herenthals to Lierre, and from the former town to Diest, Hasselt, and Tongues. So great were the inundations in this country, on the 31st of December last, that the canal of Charleroi overflowed its banks, the valley of the Senne was submerged, and the neighbourhood of Brussels under water. The communication by railway on the Chemin de Fer du Midi was for a short time interrupted, as also the circulation on the road near Ninove and Lacken, and in several other parts of East Flanders. We are glad to observe that no mention is made in the Belgian papers of such inundations having occurred in West Flanders.

Coke and rails have experienced no alteration in price; but at a meeting of forge-masters, held at Namur early in last month, the price of iron was augmented. At the Seraing works, in which establishment nearly 4,000 men are employed, the price of a locomotive and tender is about 50,000 francs, including the *pièce de rechange*, three-tenths of the amount to be paid in advance. The Prussian engineers have lately received orders to make, for their own and foreign countries, two hundred and fifty locomotives. The price of an engine with its tender, in Prussia, is 48,240 francs; in England, at the Messrs. Stevenson, and the first makers, the price is 2,200*l*.

FRANCE.

The great feature in French railway transactions at the close of last year, was the adjudication of the Paris and Lyons line to the fused companies, Rothschild, Lafitte, Ganneron, &c.; and that of the Creil and St. Quentin to the Rothschild, Lafitte, and Company. In the division of the Paris and Lyons shares, Lafitte, and two or three other companies of old standing, and, therefore, better claims, have not secured so large a *lion's* share as they might have had, or as they had a right to anticipate. As the winter drew near, and as the time for adjudicating this line approached, newly-formed companies stepped in, completed their subscriptions, and received the same number of shares as those who had been much longer in possession of their subscribed capital. The caution-money deposited with the Minister for this line was sixteen millions of francs, and the concession is for forty-one years and ninety days. The unusual mildness of the season has permitted great progress in the works, and those in the department of the Côte d'Or have advanced much beyond what was expected in September. The *Journal des Travaux Publics* states that the cutting near Dijon has reached the

rampart at the bastion of Tivoli; indeed, the earthworks are nearly finished along the whole line, and many of the works of art will be completed early in the spring. At Blaisy the workmen are actively employed on the tunnel, which is 4,400 yards in length. The only delay to be apprehended will arise from the difficulty of procuring rails. We do not profess to be endued with the spirit of prophecy, but we shall be surprised if this does not turn out to be the most paying line in France, not excepting the Great Northern. What town north of Paris can be compared with Lyons? The Frenchmen of the south, too, are of a different *physique*—all life and movement; the cider-drinkers of the northern provinces would as soon travel by the roulage. The corn, the wine, and the oil—the arsenal of Toulon, and the port of Marseilles, also, are beyond it, and form, we think, very ample grounds for our anticipations. The adjudication of the line from Lyons to Avignon is spoken of as likely to take place this month; but this appears to be questionable, as the tracing and surveys were only recently sent in to the Council of the Ponts et Chaussées; and the Minister cannot take any steps till their report has been made.

THE GREAT NORTHERN.

The works on this line are proceeding rapidly, but in the first section, from Paris to Pontoise, they are not so far advanced as might have been expected from what was announced some time ago in the French papers. The permanent way is made, but the stations are not at all forward. There will be thirty-two between Paris and the frontier: those of St. Denis, Enghien, and Pontoise, which form part of the works to be executed by the Government, are far from being completed; the watering places, the offices, engine-houses, turn-tables, &c., are not commenced. With the combined efforts, therefore, of the Government and the Company, unless they can content themselves with provisionary stations, and hiring their plant from the Versailles and St. Germain's companies, they are not likely to open this first section before March next. The state had ordered no matériel of this nature; had it been military stores, the case would probably have been different. On the second section, between Pontoise and Clermont, and on the third, between Clermont and Amiens, the works of art and earthworks are completed. But a delay in the opening of the line is likely to occur, in consequence of the tardy delivery of the chairs and rails by the manufacturers. Were it not for this circumstance, the whole line to Amiens might be finished immediately, excepting the stations, platforms, and crossings. As it is, we think it very doubtful whether the line will be opened to Amiens before May next. The station at that town will be commenced immediately. Two hundred and forty works of art may be enumerated on this line between Paris and Amiens; amongst them we may particularize the bridge on the Oise of three arches, an iron bridge over the St. Denis canal, two bridges on the Avre, and that on the Thérain, and the viaducts in the Chapel St. Denis, one of which, passing over the external boulevard, is forty-five metres in length. These works appear to be executed with elegance and solidity, and though slowly built by the engineers of the Ponts et Chaussées, the work is admirably done. The slopes near Enghien are made with brick revetments, in consequence of the unfavourable nature of the soil; and some difficulties have been met

with in the low lands near Amiens. The number of stations between Paris and Amiens will be seventeen, viz., one in the department of the Seine, seven in that of the Seine and Oise, the same number in the Oise, and two in the department of the Somme.

As to the second division of this road, from Amiens to the Belgian frontier, matters are in a very forward state. Between Lisle, Valenciennes, and Arras, the line is actually ready for traffic; and, at the fête which took place in commemoration of the defence made by the town of Lisle, the numerous trains attained a considerable speed. The stations, however, are yet to be built. Between Arras and Amiens the works are finished, and the first line of rails is nearly laid down. The probability is, that when the Great Northern is completed, an electric telegraph will be laid down from Paris to Brussels.

It was rumoured, at the commencement of last month, in France, that a fusion would take place between the Northern and Fampoux lines, but we believe no proposition of the kind was ever made by either of these companies. The plans of the Fampoux line are completed, and those made by the town of Arras of the road between Lens and that town are nearly finished. The object in making these is to have a branch, which, leaving the station at Arras, will join the line coming from Fampoux at Willerval. This project presents a great advantage over the other plan; it will be shorter by six or seven kilometres, and bring the Hazebrouk traffic direct to Arras. The capital required for this will be 1,500,000 francs, which the original subscription will cover. The contracts for the rails, earthworks, works of art, sleepers, &c., have been signed by the Company and the contractors, and it is fully expected that the inauguration will be effected before the month of May, 1847.

HAVRE AND ROUEN.

It is with much regret that, in common with all railway and other papers, we have to record the accident which occurred on this line in the middle of last month, namely, the fall of the Barentin viaduct. An English engineer designed it, and English contractors built it, so that, as neither life nor limb was lost, we must naturally expect to see a little triumphant merriment expressed by our neighbours at witnessing the fall, arch by arch, of the "perfidious Albion" viaduct. However, as we have built the Menai Bridge, the Thames Tunnel, the Trolhätta Canal, the Plymouth Breakwater, the Eddystone Lighthouse, and viaducts innumerable, the contractors, Messrs. Mackenzie and Brassy, can afford to laugh with them, and, we hope, to put it up again.

The Rouen and Havre Railway, as some of our readers may be aware, is, from the character of the country which it traverses, a work of difficult construction; the soil is chalky, and the hills rise suddenly from the valley of the Seine, forming a table-land frequently intersected by small and deep valleys. The general plan of the tracing has been to ascend this chalky elevation from the Rouen terminus, and descend into the valley of the Seine at Havre. About half a mile from the station at Rouen it crosses the river by a bridge, passes under Mount St. Catherine, and along the boulevards by a long tunnel, and at last emerges upon the level country, where the great road has surmounted the hills surrounding the town. Barentin, a small town situated at the bottom

of one of the valleys alluded to, is about twelve miles from Rouen. Across this gully the railway had to pass, and this was effected by twenty-seven arches, each fifty feet English in span, the extreme height in the middle being a hundred feet. Of course, as the bottom and sides of the valley varied in level, the piers varied in height; but the masonry was brought up to one common level in solid stone, the piers, arches, and spandrels above this being of good red brick, made in the neighbourhood. The arches were semicircular, and built on the English plan, in distinct brick rings. The foundations of the piers were in the solid chalk, or on piles, where the river and the depth of the deposit rendered it impossible to reach the rock: and an eye-witness describes it as the most elegant, and, apparently, substantial work he had ever seen. At the time of its unfortunate demise, the workmen were carrying ballast for the purpose of laying down the permanent rails, which was all that remained to be done, and to the injudicious piling up of the ballast over the recently finished arches its fall is said to be attributed. No symptoms of yielding or settlement had occurred, except a small crack in the foundations of one of the stone piers, but which did not extend to the brickwork. Mr. Locke, in his report, attributes the accident to the ballast being in larger quantities on one side of the first arch that fell than on the other, and to the mortar having softened by the frost. Fortunately the catastrophe took place at the early hour of six in the morning, before the workmen had collected. The fifth or sixth arch on the Rouen side, one of the most recently finished, was the first that gave way, after which one by one fell in rapid succession, and in about two minutes all were down! The noise and crash of the falling brickwork was heard at the distance of several leagues. The only person whose life was placed in peril was a man at work in a mill, who crawled out but little injured. The contract for completing the work ends in July next, and but for this unforeseen misfortune there is reason to suppose the contractors would have kept their time. The viaduct had been a twelvemonth in building, and though the bricks are not much injured, it is to be presumed considerable delay must ensue before it can be restored to its original state.

ORLEANS AND VIERZON.

We are glad to learn that the English proprietors in this undertaking have by a princely gift shown the sense they entertain of the services rendered them by Mr. Mathew Uzielli, for his zeal and ability in bringing to a successful issue the difficult negotiations he had to conduct in Paris, when the concession for this railway was demanded. The splendid testimonial for these services was presented to him at the Albion Tavern, on the 21st of last month, and consists of a magnificent silver candelabrum and plateau, weighing one thousand ounces. Three figures, beautifully modelled by Bailey, R.A., representing England and France united by commerce, as typical of the union of the two countries through the medium of railway enterprise, surround the pedestal of the candelabrum, and a suitable inscription records the reasons and the object for which the gift was bestowed. The design and execution were so greatly admired, that by the express desire of the Queen it was sent to Windsor for the inspection of her Majesty, who was

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pleased to express her approbation at the pleasing illustration of this union—a once difficult, but now, thanks to railways and commerce generally, easy subject. This work of art came from the manufactory of Messrs. Hunt and Roskell, New Bond Street.

The following are the receipts of the French lines for the years 1844 and 1845 :—

	1844.	1845.
Orleans	6,734,693	7,532,335
Rouen	6,530,027	7,346,261
Strasbourg	2,429,487	1,926,903
St. Germain's	1,093,221	1,191,301
Versailles (right bank)	1,447,434	1,484,478
Versailles (left bank)	852,217	789,404

CHARACTER AND RESULTS OF THE RAILWAY EXCITEMENT, WITH PROSPECTIVE SUGGESTIONS, PUBLIC AND PARLIAMENTARY.

THE railway hurricane having abated, the moment is favourable for reflection, with a view to prospective benefits. While the storm raged no reasonable appeal could be heard or would be listened to; but the gale having swept by, leaving somewhat disastrous traces of its progress, we may be able to collect results that will be useful, both to the public and the legislature. It would be wrong to infer that the task on which the country had entered with so much speculative ardour has been concluded, because temporarily arrested. A great work remains to be completed, for which vast capital and much directive intelligence will be requisite, and how these can be most promptly and efficiently combined, is well deserving consideration. The last twelvemonth has been an eventful experiment. It has been a revolutionary effort, and with the usual characteristics of revolutionary struggle, has been more remarkable for the enthusiasm and resources elicited than useful and abiding consequences. Under a wild and undisciplined impulse much has been done, or rather attempted, that now waits the judgment of the House of Commons and the courts of law, and it is this impending ordeal that will partly occupy our attention. But ere touching on these matters we shall submit a remark on the extent of the recent stir in the railway world.

In our opinion its magnitude and importance have been overrated. It has been a surface commotion chiefly, that hardly extended to the great masses and depths of the nation's speculative resources. Few great capitalists, banking or commercial firms, appear to have been tempted to risk fame and fortune in railway projects. Indeed many of them were brought forward under auspices accompanied by too obvious signs of short-lived delirium to tempt cautious and experienced adventurers. That this has been the case may be inferred from the absence of pressure in the money market. At the close of the year money has seldom been

more abundant; the Bank had upwards of thirteen millions of coin and bullion in its coffers, without any remarkable movement in its circulation, or that of the country banks of issue; and advances for the regular purposes of commerce, to houses of established repute, were never more available. The number drawn into the railway vortex has doubtless been considerable, but they have mostly been those of slender means, or no means at all—adventurers whose chief stock in trade was a fertile and not fastidious ingenuity. In the ærial castle buildings of these the collapse has been signal, but then it has been a collapse in imaginary riches only—riches that had no better foundation than puffed-up premiums, and the scrip and allotment letters of baseless projects. The real capital, actually paid up and sacrificed, we are confident, has been small in amount; and this ought not to be held wholly lost to the community; it has stimulated useful industry in part, and the residue may have gone to the unproductive classes—men of letters, attorneys, engineers, surveyors, and advertisement collectors.

So far retrospection is consolatory. But enough has been done to show the mischief and obstructiveness of the existing system. In the first place it is a *waste of strength and pecuniary means*. A gigantic work is in hand—the substitution of iron for stone roads—requiring an union of capital, scientific skill, practical sense, and trustworthiness; and the work has been left to be brought forward in a shape that does not afford a single guarantee that any of these needful elements will be secured. The results have been such as might have been anticipated. In place of an object of national utility being forwarded, one entirely deceptive and fraudulent was substituted, and became uppermost. The end aimed at was not to construct lines, but to amass fortunes by unscrupulous means; not to mend the highways and by-ways of the kingdom, but rapidly to reap illicit gains.

Had a plan been formed for defrauding the community by an issue of base coin, or for destroying the credit of the Bank of England by sowing the streets with forged bank notes, as was once suggested, it would have been almost as respectable as many of the expedients resorted to. The original contrivers of these nefarious devices are not exclusively to blame. Provisional directors had doubtless mainly in view exorbitant premiums on reserved shares, or deposits obtained on false pretences, to be shared among themselves, or wastefully and irresponsibly expended; while allottees and scripholders were equally reckless as to the business character of their transactions. All they minded was to obtain a *marketable* commodity; it might be genuine or counterfeit, they cared not; they had bought or procured, and they must sell, and the “devil take the hindmost”—that is the last holder when the gilt was worn off, or the bubble burst. Between the two the chief difference is, that one was the knowing fabricator, and the other, not unfrequently, the knowing utterer of the fraudulent representative of value.

Unprincipled and inconsistent with mercantile integrity as all this has been, it constituted in the past year a large portion of the railway work executed. Of the extent to which it was carried on, we have now authentic data for estimating. Tests have been applied—the just separated from the unjust—the real from the delusive or impracticable, and the results are before the world.

On the 17th of November the number of railway projects in the

market, and that had been provisionally registered, amounted to 1263. Of this number 775, many of them at the last gasp, managed to reach the Board of Trade on the 30th following, and lodge their plans. This was the first trial of stamina; at the next, which was a short and easy passage to the Private Bill Office, 57 dropped off, leaving 718 out of the 1263 that had started, and which only six weeks previously were flaring away with traffic tables, and big promises in prospectus and newspaper advertisements at the rate of fifty guineas a column. How many will wend their way through ulterior stages of trial we know not. Appalling is the route before them. Simultaneously with the rest at the Private Bill Office, notices must be served to every landowner and occupier, parish clerk in England, and schoolmaster in Scotland, on the projected line, and for every notice served a solicitor's fee of 1*l.* paid, exclusive of enormous fees to Speaker and clerks, before reaching the more trying ordeal of the Exchequer, or the last dead lift of ten per cent. deposit to qualify for appearance before the collective wisdom of the nation. Perhaps not more than 200 or 300 will survive these trials. The progress will have been as destructive as Napoleon's Russian campaign, and what from defections, exhaustion and death by the way, not above one-sixth of the entire host that recently flaunted in the pride of victory will reach the threshold of the Legislature, in fit condition to open the parliamentary campaign, and sustain the first passage of arms with the Standing Orders Committee.

Most assuredly the practice is bad in which for one skilful delivery there are five blundering miscarriages. It is, as already urged, a waste of strength and means. It has other adjuncts still more reprehensible. We make no pretensions to fastidiousness. People ought to be at liberty to spend their own money as they think best—to gamble with it if they like—make ducks and drakes with it if they please; but the Legislature ought not to encourage immorality. Gambling in the funds by time bargains has been always held pernicious, and is prohibited by statute; only last session an Act was passed to restrain games and wagers, and the executive government has been waging bitter war against hazard, roulette, and dice in the metropolis. But the demoralization from these sources is insignificant compared with those that have sprung up in another direction. Four-fifths of the late railway excitement has been gambling—gambling, too, of a dishonest kind; and the numerous stock markets that have sprung up in the provincial towns have, like the parent establishment in Capel Court, been perverted to the fostering of a profligate appetite for gain, infinitely more detrimental to the national habits and character than all the pandemoniums of the kingdom.

Much of this mischief, it is likely, will be corrected by experience of its own entailed consequences. The numerous transactions in shares have been carried on, in ignorance or defiance of an Act of Parliament respecting whose provisions it is probable the Court of Queen's Bench or Exchequer will, ere long, read a practical lesson, that to many will be both new and salutary. By provisional registration, a Joint-Stock Company is only authorized to *advertise* its scheme, and allot shares; but such shares do not become transferable till after complete registration or an Act of Parliament has been obtained. They are without value in exchange, and can no more be the subject of sale than the water we drink, or the atmosphere we breathe. Precisely such was the position of a large proportion

of the 1200 companies afloat in the autumn. They might advertise and receive deposits, but to the depositors in return they had no power to issue anything possessing the least intrinsic or saleable worth. Applicants for shares might bind themselves onerously to the provisional committees, without, in return, receiving any negotiable instrument of more transferable value than a brass sovereign or a flash note of the Bank of Elegance. It follows that all the gambling traffic in the bubble projects that has raged in allotment letters, bankers' receipts, and scrip, has been in documents without legal validity, in which there could be no contract of sale that bound either seller or buyer further than they pleased.

Such reckless dealings in moonshine may not be repeated to a similar extent, but men will continue to buy what they can sell with immediate profit, leaving the last purchaser to find out the worthlessness of the article. Public gullibility is without stint, and the same baits have been and will continue to be swallowed to the end of time. Provisional registration affords no adequate protection, since it may be done by any party at a cost not exceeding that of an ordinary newspaper advertisement, and by which they become empowered to fabricate and issue a fraudulent currency, that the unthinking traffic and gamble in as voraciously as if genuine. It is an abuse incumbent on the Legislature to check, and which might be done by making complete registration, in lieu of provisional registration, the imperative preliminary condition to the public announcement of a joint-stock undertaking. A subscription to the amount of one-fourth of the proposed capital by registered shareholders would thus be secured, and some *bonâ fide* security afforded both of the respectability and resources of the promoters.

In this way the field of speculation would be kept open for solid and legitimate undertakings, that have hitherto been absolutely overwhelmed and crowded out of the market by the delusive projects of a noisy and unscrupulous throng of adventurers. It is what the country urgently requires. Comparatively little has been done to carry through the needful revolution in internal communications. Fifteen years have elapsed since the Liverpool and Manchester Railway was opened, and in the interim the aggregate length of the railways completed, and for which Acts of Parliament have been obtained, is less than 6,000 miles. At the same rate of progression a century must elapse before the conversion from *rut* to *rail* can be completed. Six thousand miles is only one-fifth the length of the turnpike roads in England and Wales, exclusive of a quadruple length of highways and parish roads. Hence several hundreds of millions will have to be subscribed before lines have been substituted for the general or trunk roads of the kingdom; and this is not likely to be raised, unless inducements and securities are held out to men of capital, character, and local influence, to place themselves at the head of the movement.

Herculean as the task is that remains, it is not beyond the enterprise and capabilities of the community. The late reaction may have been salutary in clearing the atmosphere of the *ignis fatuus* that bewildered and misdirected the speculator; it affords reason for caution, but none for relaxation of effort or permanent depression. What has been done strongly urges to perseverance. The greatest railway works have been profitable, not ruinous or losing undertakings. Returns of traffic afford this encouragement. Allowance must doubtless be made for the in-

crease of trade and population, for the opening of a greater portion of the lines, with the addition of branches ; but it is gratifying to find that every additional mile of available railway secures its share of passengers, and that the aggregate revenue is enormous, and yearly augmenting. In 1841 the income of twenty leading railways was 2,050,326*l.* ; in 1844 it had reached 2,836,088*l.* ; and in 1845 it was half a million more, namely, 3,381,998*l.* The greatest increase in 1845, compared with 1844, was in the Birmingham ; then in the Midland ; thirdly, in the South Eastern ; fourthly, in the Eastern Counties ; and lastly, in the South Western.

The machinery requires amendment, but no cause exists for abatement in heart and hope, and extremely unwise it would be in the Legislature to oppose unnecessary obstacles to the expansion of the railway system. Every periodical term of national prosperity, like that experienced during the last four years, produces its surplus of capital and speculative enterprise. It is the natural harvest of an antecedent period of privation and depression, the fruits of which, as the results of our own industry and efforts, ought to be fixed and realized in British objects. For the safe and remunerative employment of all our cumulative means there is ample scope in energetically carrying out the current improvement in travelling and transport, not only in the British islands, but in the East Indies, and in our West Indian and American possessions. In this way would the compactness, unity, strength, and general civilization of the empire be incalculably augmented. But to narrow these outlets by legislative discouragement, by unduly checking the speculative ardour of the country, and driving capital from home to continental or other foreign investments, would be directly obstructive to the nation in its peaceful career of power and true greatness. Parliament in the present session, we are convinced, will act on no such mistaken and anti-British policy, but while it seeks to direct, will be careful not to check railway enterprise. It will be seduced into no hasty restrictive enactment by recent extravagancies, many of which either have, or speedily will, incur adequate punishment by the infamy of public exposure, or the just visitation of despised laws. Apart from this there is little further need of legislative interference. That which is most requisite is fair play and a clear stage, that the avenues of adventure be kept open to bonâ fide and competent undertakings, to the exclusion of the abortive and fraudulent.

There are, however, other questions that urgently call for authoritative determination, and the decision of which seems preliminary to further progress. The atmospheric principle is one. Ought the pressure of air or the pressure of steam to be preferred as a propulsive force ? Ten patents have been taken out for the mechanical application of this invention, and their competitive claims ought, with all possible celerity, to be conclusively ascertained.

Next calling for judgment is the *broad and narrow gauge*. Upon this issue the Government has not been wholly inert, as a commission of mathematicians has been appointed to try and determine. But it seems as much a question of statistics as of science ; involving considerations of traffic and expense of construction, as well as speed, safety, mechanical strength, and locomotive force. A uniform standard of width it is important to fix, especially on the trunk lines, for the

sake of the inter-communication of similarly constructed carriages; but this uniformity might occasionally be an obstacle to the formation of branch railroads. Except that the resistance of the air, owing to the greater area of resisting surface presented by the carriages, mechanical advantages seem on the side of the broad gauge. It more safely admits a higher rate of speed—is less undulatory and more comfortable in travelling—admits of more capacious carriages, and a more powerful engine: altogether it affords scope for a more potent mechanical apparatus. But then it has serious drawbacks in matters of outlay. Everything connected with it almost must be done on a larger scale, and at a greater cost. It covers more acres of land—requires larger tunnels, bridges, viaducts, and more expensive cuttings and embankments. This difference of expense a poor district of little traffic might be unable to bear, and if the broad gauge were made imperative, it might, rather than incur it, decline the benefits of railway communication.

Another view of this question it is material to consider. Granting the broad gauge affords the most powerful machinery, it may be a superfluous power—a power exceeding even the ordinary wants of trunk lines. It has not been satisfactorily shown that the narrow gauge, at a less cost of construction, is deficient in locomotive capabilities. If the lesser cost will suffice—yield all needful accommodation and security—it would obviously be pecuniary waste to incur the greater. Excessive and needless outlay, far exceeding that of any other nation, is admitted to have been a cardinal error—though on the safe side—of English engineering. The narrow gauge was adopted by Mr. George Stephenson, in the construction of the Liverpool and Manchester, and his example, with only two exceptions, has been followed in every subsequent line. Throughout the British Islands and the United States of America, on the continent of Europe, fifty-six inches and a half is the uniform width of railways, with the sole exceptions of the Great Western, which is eighty-four inches, and another railway, that is seventy-two inches. It was Mr. Brunel's deviation from the Stephenson standard, that has originated the question of the gauges, and so competent an engineer may have doubtless had, apart from mere novelty, adequate reasons for his defection, either present or prospective.

Mr. Herapath has taken up the question of the gauges, and discussed it with his usual ability, but somewhat with his usual onesidedness. It is quite true that railways must be looked upon "as inventions for the benefit of commerce," but not exclusively so. It is also true that, "if two schemes are contrived to do the same thing, that one which does it with the less expenditure of money, is the one to be preferred, *provided all other things are alike.*" Now it is the last proviso that makes all the difference in the relative merits of the broad and narrow gauge. All other things are not alike between them. Viewed commercially, the results of the experimental trials appear to be in favour of the narrow gauge, and this may be sufficient to determine the preference of companies undertaking to construct and work railways; but it does not embrace the whole inquiry, and it is not sufficient to determine the Legislature in fixing a general rule for their construction.

First, it is not merely the return of profit that is to be taken into the account, but the relative *safety* to passengers afforded by the competing gauges. In this respect the broad gauge has the advantage. Neither is

it the *immediate* profit to the shareholders that is to be solely looked to, but which gauge is most suited to the future as well as the present wants of the public. Even on trunk lines the narrow gauge may be powerful enough and safe enough for the existing traffic of the country, but what may it be twenty or ten years hence, when the commerce and population of the country are, as in all likelihood they will be, enormously augmented?

These are considerations which Mr. Herapath appears not to have included in the elements of his analysis. But they cannot be overlooked in the forthcoming report of the commission, nor by parliament, which is bound not only to look to the commercial returns of the broad and narrow gauge, but the guarantees they respectively afford against accidents, and adequacy to meet the probable needs hereafter of the community.

Curves, gradients, and a rate of speed, are now thought practicable, that were never dreamt of fifteen years past; and for all these the eighty-four inch width may be most safe and fit. These points, however, we shall leave to be determined by the report of the scientific commission, only remarking that, with the mass of new railway bills impending, it urgently calls for despatch and speedy settlement.

Hardly less so are the relative merits of the *direct* and *devious* line. Engineering difficulties, public accommodation, time, safety, economy of working, immediate returns, and comfort of travelling, form the chief elements of railway contrivance. The leading object is to connect places either by the shortest distance, as a bird flies, or by one more deflect, as a river flows. But the shortest communication may not be the best, either by water or rail. A river may be valuable in proportion to its length—the number of populous towns and cities it flows by—the extent of country it drains—and its navigable facilities. With these the railway mainly corresponds. It is an agricultural, mining, commercial, manufacturing, and transport machine, and the greater in number and magnitude the interests of this description embraced in its course, the more comprehensive and valuable are the public utilities of its construction. The question has been mis-stated, and misunderstood. It is not the shortest, but the most productive line that is eligible; that which with the smallest outlay commands the largest traffic.

Upon such elements ought legislative preferences to turn in deciding competitive claims in the current parliamentary session. Of these the London and York seems likely to be the hardest battled. Simply as respects the two capitals, the nearest possible approximation to the ecclesiastical cut, as the crow flies, from steeple to steeple, might be best, but not in reference to aggregate and intervening interests. As respects the first only, a line through the atmosphere would afford the aptest accommodation, but, if practicable, it would not pay for want of feeders. With some truth Mr. Hudson has said that railways should be measured by time not distance, and a long line through a level country may be sooner traversed than a shorter through a more obstructive locality. But *time* forms only one item to be brought into the account. The two interests involved for a committee to consider, are those of the public and those of the shareholders. Unless a line be remunerative it cannot be worked, and ought not to be made. A direct line to Leeds from London, leaving out Sheffield on the left hand, and

Doncaster on the right, might be most convenient to the Leeds people, as saving time and distance, but might not be the most economical to them. For want of the traffic of these outside towns, either higher fares must be charged, or less dividends on capital realized. The line most conducive to general or public convenience has been already indicated, by showing that the route is to be preferred which runs through the greatest mass of population, productive industry, and capital.

Apart, however, from both the interests of shareholders and the interests of the community, is another and antecedent interest, that ought not to be wholly overlooked in railway legislation. It was at first loud and obstructive, but has become quiescent, either from prospective benefit nor the hopelessness of resistance. But all have not been bought over, or reconciled, and a numerous class exists to whom every new line is a new evil, and the longer it is the greater the distress it inflicts. Every railroad disturbs property and possessions, and endangers a mass of pre-existing revenue from turnpike tolls, posting and road-houses, stage-coach and carrier traffic. To all these the railway is detrimental, and to some ruinous. As a fair corollary, parliament is bound to let loose no more of the iron deluge than is conducive to public improvement; not to sanction two lines if one will suffice, or suffer an established line, against which exists no impeachment for bad management or exorbitant profits, to be beard by a competitive one, without need or valid pretexts of general utility.

RUSSIAN RAILWAYS.

At the moment when the Emperor Nicholas (the celerity of whose movements is already super-imperial) presents himself unexpectedly at Milan, in the disguise of an Austrian Colonel, and, having reviewed the garrison there, embarks at Genoa with the Empress, purposing to repose the imperial organs of vision for a few days at Palermo,—the journals of St. Petersburg promulgate, with all due form, the imperial intentions and projects on the subject of internal communication in Russia, by the now commonplace means of a few railways. Certainly there is a fair field for the railway engineer in Russia, for roads in those extensive and *expansive* dominions are scarce enough, “goodness knows, Mr. Caudle,” to make the construction of anything in that way very desirable: indeed, the only road in the empire is that from the capital to Moscow; all others so called are mere *tracks* across the steppes, and not made roads; and, be it remembered, that even the one to Moscow was only half finished so late as the period of the present emperor’s accession—previously to this it was a row of logs of wood of all shapes and sizes. Scenery in Russia there is none, nor anything else between the different towns which can at all interest even the most sensitively inquisitive, or self-improving traveller, or excite in his mind a moment’s uneasiness at his going so fast that he has no time to look about him. “What to observe” in Russia, from the windows of a berline, it would be difficult to say. Neither are there any postmasters, coachmasters, innkeepers or turnpike trusts, whose ruin the traveller might be tempted to regret. No,

the march of improvement goes on in Russia without the thorns that poets will have it are attached to every rose. In England it was "Two pair out," and out they came, perfect, mounted, and before you could say "Jack Robinson" they were put to, and, "all right," you were bowling down the Portsmouth road twelve miles an hour.

"We shall ne'er see the like again."

And it's all for the best, of course, and yet those four posters *did* go the pace, the boys were so smart in their tops, the landlord did look so proud, and the brats in the high street so merry; however, that occupation's gone, and ours is to record the speed of locomotives, not to lament that of coaches, and yet we should consider ourselves degenerate if our hearts did not warm at the bare recollection of these bygones. Who can forget the Age leaving the Castle yard at Brighton? And shall we forget the good-natured, shining-faced coachman that drove us from Bagby or Oxford, the box seat, and leave to finger the ribbons? or when

"Deprived of sleep by some annoying matter,
It has been music to our ear,—delight!
When, breaking through the silence of the night,
We heard the bugle-call—the patter-clatter
Of the quick horses' feet—the rattle-clash
Of bars—the short pull-up—slap-start—Ah dash
Our wig, but we do miss all this—much—very."

But an Orloff, a Daschkoff, or a Petropoff has nothing of this kind to sentimentalize over, nor would he have had if Russia had gone five hundred years longer without a rail,—so let them improve, (there is room for it,) and lay down their permanent ways as soon as possible.

"Once upon a time, about fifteen years ago," Nicholas heard of railroads, and of course wished for and determined to have one. Happily for him a Chevalier von Gerstner was then travelling in Russia and exploring her mines, and having just made a line for the Emperor of Austria, the Autocrat granted him an audience, and graciously commissioned him to form a company, and make one for him. The line chosen was from St Petersburg to Zarskoe-Selo and Pawlowsk, a distance of eighteen miles and a quarter, and the shares having been rapidly subscribed for, the Chevalier chose his gauge of *six* feet, ordered his first locomotive of Mr. Stephenson, and commenced his road. This was in 1836, and on the 21st of March of that year the imperial grant for this line was obtained. The privileges conceded by it are numerous: the company pay no taxes of any description; they are empowered to fix the rate of their own fares; and the railway remains their property for ever. The execution of the line was regarded as if undertaken by the crown itself, crown lands were given gratis, every one was obliged to make way; even the *military* department retired before the rails, for the artillery and rocket manufactory were obliged to take ground to the rear. Indeed difficulties of every description disappeared before the favoured company, save only those connected with the obtaining of their material and machinery, and getting them across the morass in which the Venice of the North was planted by the humane and clear-sighted Peter the Great.

* "My Dog Brace," a Poem, by the Rev. Kalamus Currens. London, Mortimer, Adelaide Street.

The whole line is a causeway, ten feet and a half above the level of the ground, or fourteen from the bottom of the side ditches. The first portion, four miles, was opened on the 3rd November, 1836.

This was on a small scale; the next and more recent project is to join Moscow to St. Petersburg, a distance of 448 miles. And now, according to the Russian journals, a line is to be undertaken from the capital to Odessa, a distance of 980 miles, the trains upon which will perform the journey in forty hours. In its enthusiastic admiration of this scheme, the journal intrusted with the announcement holds it forth as the *longest line in the world!*

We are, therefore, to suppose that the transatlantic lines hold no place in the Slavonian notions of the world; they may have been heard of in St. Petersburg, or they *may not*. The accumulated length of the lines made by the small States in Central Europe, of course, is not worth thinking of on this occasion. "This immense railway," says the Petropolitan newspaper, "will traverse three climates." The traveller will leave St. Petersburg in a marrow-piercing cold, and in less than two days after, behold he will be revelling in the refreshing diet of water-melons and figs in Odessa, to say nothing of the unrefreshing dust. Charming! Moreover, the *Imperial Gazette* entertains not a doubt, that a branch to the sea of Azof, with prolongations to India and the Chinese Wall, will be constructed shortly afterwards.

We are, indeed, zealous partisans in the railway cause—but, sanguine as we are, we cannot share the illusory anticipations of our Russian contemporary. To reach Ispahan, the province of Daghistan must be crossed, and Schamil will scarcely vouchsafe a milder reception to Russian rails than he has bestowed upon Russian arms; the Autocrat has yet much to do before he can be supposed really to meditate the execution of such a line. It is, however, Russo-Imperial to talk about it; or anything else that can tend to keep up in Russian minds the old notion that "God and the Emperor know all things." The idea indicates the tendency of Russian policy to amalgamate with the eastern nations, rather than run the risk of contracting the taint of progression and liberalism that now pervades Europe. The construction of railways is indeed intimately connected with the internal condition of the various countries, that either have already adopted them, more or less, or inevitably must do so, sooner or later, or retrograde in proportion and remain for ever blanks in the map—not of countries, but of civilization. Let us contemplate the map of Europe; the lines traced over it exhibit the policy which rules the different states. In England great and important lines diverge from London, while in Ireland we find only a few, of no comparative consequence; one country is rich and flourishing, the other poor and abandoned. In France, lines spring principally from the capital;—Auvergne and La Marche are not yet thought of;—that only denotes a sterile and mountainous country, unfortunate by nature, therefore neglected by Government.

On the other hand, the lines nearly completed towards Belgium and the British Channel, exhibit the important relations, commercial and other, now developing themselves between France and her neighbours in that direction. In Germany, the determination to unite the Baltic and the Adriatic is evinced by the direction, north and south, generally adopted; which circumstance also exhibits a disinclination on the part

of the Germanic Governments to unite more freely with France ; and probably accounts for the fact that few lines, in comparison, run east and west. The Dutch lines do not yet join the Belgian ; they seek an union with Germany, and avoid Belgium—evidence that a coldness still exists between these two countries, once united under the same sceptre, and but recently separated. By the promptitude with which the link between Kiel and Altona has been finished, we may estimate the anxiety of the Danish Government to raise the prosperity of Denmark on the ruins of that of Lubeck. In the scheme on the coast of Sweden we trace the watchful care of Oscar to free his commerce from the heavy tolls levied in the passage of the Sound. Even countries which are subject to, or dependent upon, others manifest their sympathies in this manner.

The Emperor of Austria proposes to the Hungarian Diet to vote a sum of money for the purpose of constructing a railroad from Pesth to Trieste.—“A railroad?” “Good,” say the Magnates, “but we prefer it from Pesth to Fiume—we prefer the interest of a Hungarian port ; Trieste is not in Hungary.” Here is a specimen of independence ill disguised—here is the leaven of the consciousness of ancient nationality ! Poland, too—the betrayed, conquered, and cruelly oppressed Poland—exhibits her sympathies by the line she traces for her first railroad, her first essay to steal a ray from the sun of modern ages—the great all-influential invention—to illumine the gloom of her sufferings. The Bank of Warsaw has cleverly seduced the Autocrat into giving an ukase to authorize the construction of a railroad towards Austria—from Warsaw to Cracow ; to that ancient capital of Poland which recalls to the minds of the children of that devoted country the memory of all its splendour, and which yet preserves traces of the liberty and nationality so completely suppressed in every other part of it.

But this is an exception, and, we fear, will prove a solitary one ; and, arguing from other data in Russia, we augur ill of the intentions of the Government from its Chinese tendencies and absurd absolutism. Had the Autocrat decided upon having a line to the Prussian frontier, instead of making the “*longest line in the world*,” it would have been saying, “I will keep pace with the progress of Europe, I will grant to my people a free communication with foreign countries, and afterwards, by well considered and carefully developed ameliorations of my hitherto exclusive policy, I shall bestow upon them the rights and liberties enjoyed by the civilized nations of Europe.” But to construct lines only in the interior of his own empire, is declaring to all Europe : “I dread your contact for my simple-minded Muscovites ; the atmosphere even of Prussia is too much tainted with liberalism not to make it dangerous. I want railways, but it is for my own private convenience, for the transport of my troops ; especially to have the gratifying power of appearing at any moment, anywhere, at the head of my four-and-twenty regiments of guards. How happily that will condense my power of scattering dismay in style ! One visit will keep any of my provinces in hopeless dread of the next ; but no tampering with Europeans ; in the event of a war, I should beat them, but at the price of opening the eyes, and therefore corrupting the hearts, of my devoted Muscovites.”

After all, the road is not made to Moscow yet, though its completion is held out to public expectation as an event of 1847, to commemorate the foundation of the town in 1147 ; and, as the Emperor likes to

keep the good things to himself, and means to make and maintain his own railways, it is just possible he may blister the imperial digits in tinkering a locomotive. Anything, however, rather than concede too many grants to Companies. Nicholas is not to be caught napping yet; from a general meeting of shareholders there is but a step to a House of Commons. Companies would be the cheapest plan, but what of economy to the Autocrat? Has he not the inexhaustible Russo-Asiatic mines of the Ural and Altai mountains? No doubt he has; nor any doubt that they are inexhaustible, for Mr. Murchison, the court geologist of Russia, says so: but there is a Russian writer who is of opinion that these resources are amply drawn upon, though he proves them equal to those of the two Americas; and he estimates at their full value the unprofitable drain upon them of the Circassian war, and the expensive watch that is kept upon hapless Poland's every glance.

That the two colossal railways we spoke of at the commencement of this portion of our article will be rapidly executed, we have some doubts. Despotic Governments often have both the power and the will to do things on a grand scale—the Mahmudie Canal is a horrible illustration of this truth: and, as far as labour is concerned, the Emperor can command *that* (comparatively without cost) to any extent; but Russia, though flat, particularly in the parts of it which these lines will traverse, is not without certain, though not insuperable, difficulties for engineers, and there are large tracts of very bad and wet soil—indeed, a great portion can hardly be said to be much better than morass.

As to the traffic between Moscow and St. Petersburg, it must be very considerable, for, independently of there being a capital at each end, there are between them the stirring towns of Novogorod, Torjok, Tver, and Klin. One great feature must, however, always impede the success of railways in Russia—the non-existence of third-class passengers, as well as the small proportion of second-class. Out of her fifty-nine millions of inhabitants (male and female) forty-five millions are serfs, who cannot leave the estate to which they belong; and, being slaves, their kopecks are as few as their pleasures. Again, putting aside four millions for Poland, two millions for the Caucasian provinces, one million and a half for Finland, and two millions for the military colonies, we are left with *two millions and a half* of artisans, shopkeepers, merchants, priests, and nobility to form the passenger traffic for the *longest line in the world*. Why the South-Eastern Railway carries 1,300,000 passengers annually, rather more than half the whole travelling population of Russia. As a political engine, a railway may be a most useful thing for the Russian Government in conveying the troops, either to awe the more liberal and uneasy population of Moscow, to fill up the breaches made in the ranks of the army by the brave Highlanders of the Caucasus, or to occupy Constantinople when the Gulf of Finland has succeeded in its persevering attempts to overwhelm St. Petersburg, or it shall please Nicholas to exchange his summer house in the Crimea, for one overlooking the Golden Horn.

The passenger traffic on the line between St. Petersburg and Odessa must be less than that between St. Petersburg and Moscow; but the goods traffic on the portion of it between Kief and Odessa ought to be very large, for all the corn brought to the latter town from the Polish provinces for exportation will be conveyed upon it; at present it requires

one hundred thousand oxen to transport two hundred and fifty thousand quarters of grain over the same ground. Should such a contingency occur as the completion of the line from Kief to Odessa, and the corn laws be, as probably they will, much modified, or repealed—the effect upon the price of that commodity in Odessa, and consequently in England, will be a considerable reduction—unless the Emperor should feel an unexpected pleasure in putting on an export duty at this *free port*.

We think we have said enough to convince speculators, perhaps not so hard a task as it might have been a few months ago, that they owe a debt of gratitude to the Emperor of all the Russias, for his kind consideration in not raising his railway wind in this *enterprising* island. We, however, wish him every success; and if he will permit his forty-five millions of serfs to run about the steppes at their own discretion, and thereby bring a passenger traffic on his lines, we think he may have some chance of realizing—a *small* dividend.

LIST OF LINES ABANDONED FOR THE PRESENT.

THE following is the most accurate list which we have been enabled to obtain, of Companies which failed to deposit their plans on the 31st of December, 1845, and are, therefore, not prepared to proceed in the present session :—

Abergavenny and Monmouth.	Bedfordshire, Hertfordshire, and Essex Junction.
Abrewas and Ashby-de-la-Zouch.	Belfast, Armagh, and Sligo.
Alton, Farnham, and South Western.	Belfast and Enniskillen.
Argyle.	Birkenhead, Birmingham, and Brighton Union.
Armagh, Westport, and Castlebar.	Birkenhead and Preston.
Athlone and Sligo.	Birmingham and Aberystwith.
Atmospheric.	Birmingham and Boston Direct.
Avon and Severn Valley.	Birmingham and Carlisle, Leeds and Manchester.
Aylesbury and Coventry Direct.	Birmingham and Gloucester, and Stour Valley.
Ayr and Berwick.	Birmingham, Hull, and Lincoln.
Ayr and Portpatrick.	Birmingham, Leicester, and Spalding Union.
Ballycastle, Dervock, and Ballymony.	Birmingham and Lichfield.
Baltinglass Junction.	Birmingham and Lichfield, or South Extension.
Barnaley and Midland Junction.	Birmingham, Lichfield, and Uttoxeter.
Bath, Bristol, and Gloucester.	Birmingham, Nottingham, Gainsborough, and Hull.
Bath and Poole Direct.	Birmingham, Merthyr Tydvil, and Aberystwith.
Bath, Salisbury, and Southampton.	Birmingham, Newton, and Aberystwith.
Bath, Wells, Glastonbury, and Taunton.	Birmingham, Peterborough, and Norwich.
Barton-on-Humber and Brigg Junction.	
Basingstoke and Bridgewater.	
Basingstoke and Brighton.	
Bedford and Cambridge.	
Bedford, Exeter, and South Continuation.	
Bedford, Hitchin, Hertford, and Ware.	
Bedford, St. Neots, and St. Ives.	

- Birmingham and Redditch.
 Birmingham, Redditch, and Studley.
 Birmingham and Southampton, Brighton and Dover.
 Birmingham and Southampton.
 Birmingham and Warwick.
 Birmingham, Warwick, and Leamington.
 Birmingham and West Bromwich.
 Birmingham, West Bromwich, Wednesbury and Walsall.
 Birmingham and Worcester Direct.
 Blackwall Extension to Gravesend.
 Blythe and Tyne Junction.
 Bodmin, Tavistock, and Exeter.
 Bognor, London, and Brighton.
 Boston, Grantham, Leicester, and Midland Counties.
 Boston and Great Grimsby Coast.
 Boston and Holyhead.
 Boston and Wainfleet.
 Bradford, Manchester, and Liverpool Direct.
 Bradford and Thirsk.
 Brentford, Uxbridge, and Watford.
 Bridgewater, Frome, and Central Somerset.
 Bridgewater Navigation and Railway.
 Bridport and Exeter, or South Coast Junction.
 Brighton and Cheltenham Direct.
 Brighton Junction.
 Brighton, Lewes, Tunbridge-wells, Gravesend, and Eastern Counties Junction.
 Brighton, Lewes, Tunbridge-wells, and Dover.
 Brighton, Tunbridge-wells, Dover, and East Kent.
 Bristol, Bath, Bridgewater, and Grand Junction.
 Bristol, Bath, and Brighton.
 Bristol, Bath, and Poole.
 Bristol and Bristol Channel.
 Bristol, Clevedon, Tiverton, and Yeovil Branches.
 Bristol and Liverpool Junction.
 Bristol, Poole Harbour, and Lyme Junction.
 Bristol and Southampton.
 Bristol and Southampton Direct.
 Bristol, Wells, and Poole.
 Bristol and South Wales.
 Burnham-dock and Bristol and Exeter Branch.
 Burnley, Bradford, Leeds, and York.
 Burton, , and Knottingly.
 Burton-upon-Trent and Liverpool Junction.
 Burton-upon-Trent, Stafford, Shrewsbury, and Newtown.
 Caledonian Canal and Great Northern.
 Cambridge and Colchester.
 Cambridge and Lincoln.
 Cambridge and Bury St. Edmund's and Waveney Valley.
 Cambridge, Oxford, and Stour Valley.
 Canterbury and Dover.
 Carlow and Kilkenny Junction.
 Carlisle and Berwick Direct.
 Carlisle and Berwick Junction, with branch to Hawick.
 Carrick-on-Suir, Clonmel, and Thurles.
 Cashel and Fermoy.
 Central County Kent.
 Central Metropolitan.
 Central Staffordshire.
 Central Suffolk.
 Central Sussex.
 Central Wilts and Hampshire.
 Chelmsford Extension.
 Chelmsford, Hertford, and Berkhamstead.
 Cheltenham, Brighton, Folkestone, and Dover.
 Cheltenham and Brighton Junction.
 Cheltenham, Gloucester, Stroud, and Southampton.
 Cheltenham and Great Western.
 Cheltenham and Ipswich Direct and Independent.
 Cheltenham and Malvern.
 Cheltenham, Norwich, and Ipswich.
 Cheltenham, Oxford, and Brighton.
 Cheltenham, Oxford, and London.
 Cheshire and Shropshire Junction.
 Chester, Macclesfield, and Sheffield.
 Chester, Stockport, and Manchester.
 Chester and Warrington.
 Chester, Whitchurch, and Shrewsbury.
 Chester and Wolverhampton.
 Chester and Wrexham.
 Chesterfield and Lincoln Direct.
 Chester, Pargate, and Birkenhead.
 Chippenham, Stroud, and Gloucester.
 City and Camden-town, and Birmingham Junction.
 City of London Central Terminus and Trunk.
 City of London Junction.
 City and West End Railway and Terrace Company.
 City and Metropolitan Junction.
 Clarence.
 Clevedon and Poole Junction.

<p> Clonmel and Fermoy. Colchester and Bishop's Stortford. Colchester Port and Nuneaton. Colchester and Cambridge Direct. Cooke's National. Cork, Cork Harbour, and Crookhaven. Cork, Fermoy, and Cove. Cork Western Junction. Cork, Whitechurch, and Lismore. Cork, Tralee, and Dingle. Cornwall North and South Coast. Coventry, Banbury, and Oxford Direct. Coventry, Bedworth, and Nuneaton. Coventry, Leicester, and Spalding Union. Coventry and Worcester Direct. Croydon and Epsom. Cumberland Union. Darlington, Hexham, and Hawick. Dartmouth and Plymouth. Dawpool and Manchester Docks and Railway Company. Deal and Dover Junction. Delabole and Rock. Derby Ashbourne, and Burton Direct. Derby, Mansfield, East Retford, and Gainsborough. Derby, Uttoxeter, and Stafford. Devonport, Bristol, and Dover Junction. Direct Birmingham and Dudley. Direct Birmingham and Leicester. Direct Birmingham, Leicester, and Boston. Direct Birmingham, Oxford, Reading, and Brighton Atmospheric. Direct Boston, Louth, and Great Grimsby. Direct Brecon, Abergavenny, and Monmouth. Direct Chatham, Portsmouth, and London. Direct City and South Union Atmospheric. Direct Dover and Portsmouth. Direct Dublin, Cork, and Bantry. Direct Epsom and South London Junction Atmospheric. Direct Essex and Berkshire. Direct Exeter, Plymouth, and Devonport. Direct Exeter, Tiverton, and Minehead. Direct Gloucester, Nottingham, and Hull. Direct Hull and London, via Boston. Didcot, Hungerford, Marlborough, Devizes, and Trowbridge. </p>	<p> Direct Independent Kent, Surrey, and Sussex Union. Direct Leicester and Newark. Direct Lincoln, Grantham, and Northampton. Direct Liverpool, Lynn, and Great Yarmouth. Direct London and Dungeness. Direct London and Exeter, Falmouth and Penzance. Direct London and Gravesend. Direct London and Hastings Railway, Harbour, Pier, and Dock. Direct London and Hastings, Surrey and Sussex. Direct London and Holyhead. Direct London and Holyhead and Port Dynllaen. Direct London and Liverpool. Direct London and Milfordhaven. Direct London and Newcastle-on-Tyne Coal, Coke, and Traffic Company. Direct London, Nottingham, and Sheffield. Direct London, Shrewsbury, and Port Dynllaen. Direct London and South Weald of Kent. Direct Macclesfield, Bolton, Blackburn, &c. Direct Macclesfield and Chester. Direct Manchester and Bury. Direct Manchester, Leeds, and York. Direct Manchester and Sheffield. Direct Newcastle, Edinburgh, and Glasgow. Direct Newcastle-upon-Tyne and Durham. Direct Great North of England. Direct Northern, Eastern, and Western Junction. Direct Northern and Midlands. Direct Norwich. Direct Nottingham and Birmingham Junction. Direct Oxford and Exeter, and Cambridge and Oxford Extension. Direct Oxford and London. Direct Plymouth and Bideford. Direct Sheffield and Macclesfield. Direct Sheffield and York and Wakefield, Pontefract and Goole Junction. Direct Southampton, Anglesey, and Gosport. Direct West End and Croydon. Direct Western, Exeter and Tiverton. Direct West of England. </p>
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- Diss, Beccles, and Yarmouth.
 Diss and Colchester Junction.
 Doncaster, Wakefield, and Bradford.
 Doncaster, Wakefield, and Leeds.
 Doncaster, Worksop, and Mansfield.
 Dorset and Devon Union.
 Dover and Bristol.
 Dover, Deal, Sandwich, and Ramsgate.
 Dover, Hastings, and Brighton.
 Dover, Salisbury, and Yeovil Junction.
 Dublin and Armagh, Ireland.
 Dublin, Belfast, and Coleraine Junction Extension.
 Dudley and Birmingham Junction.
 Dudley, Madeley, Brosely, and Ironbridge.
 Dundalk and Enniskillen.
 Dundalk and Sligo.
 Dungeness Breakwater, and Dungeness, Rye, and South Eastern Junction.
 Durham and Lancashire.
 East Coast of Yorkshire.
 Eastern Counties, Blackwall, Greenwich, and Croydon.
 Eastern Counties Extension and Cambridge and Worcester.
 Eastern Counties Junction and Southend.
 Eastern Counties and Trent Valley Junction.
 Eastern and Northern Counties Junction.
 Eastern Counties Extension (Ware to Peterborough).
 East Riding Junction.
 East and West Cumberland Junction.
 East and West Suffolk.
 East Yorkshire.
 Edinburgh, Southampton, Manchester, and Carlisle.
 Ely and Wisbeach Direct.
 Enniskillen, Strabane, Londonderry, and Coleraine.
 Erewash Valley Extension, Rochdale, and East Lancashire.
 Evesham Valley.
 Exeter, Tiverton, and Minehead.
 Fleetwood-on-Wyre and Clitheroe.
 Fleetwood-on-Wyre and Northern Junction.
 Forest of Dean and Severn Side.
 Frome, Wells, and Bridgewater.
 Gainsborough, Newark, and Nottingham.
 Gainsborough, Sheffield, and Chesterfield.
 Galway and Clifden.
 General Post Office and Great Metropolitan Junction.
 General Metropolitan Terminus and Extension.
 Glasgow and Monkland Direct.
 Glasgow and Newcastle Junction.
 Gloucester, Bedford, Cambridge, and Ipswich.
 Gloucester and Leominster.
 Goole and Doncaster.
 Grand Central Union and Birmingham.
 Grand Junction, Great Western, and South Western Junction.
 Grand Junction and Midlands Union.
 Grand London and Dublin Approximation.
 Grand North Central.
 Grand Union Extension.
 Grantham, Sleaford, Horncastle, and Louth.
 Gravesend, Tilbury, and Eastern Counties.
 Gravesend, Strood, Rochester, and Chatham.
 Gravesend, Tunbridge-wells, and Brighton.
 Great British.
 Ditto Extension.
 Great Central.
 Great County of Donegal.
 Great Gwendraeth Vale and Welch Junction.
 Great Hibernian Central Junction.
 Great Irish.
 Great Irish North Junction.
 Great Leeds and London Direct.
 Great London and Edinburgh Direct.
 Great Manks.
 Great Manchester, Rugby, and Southampton.
 Great Metropolitan.
 Great Metropolitan Terminus.
 Great North Central Trunk.
 Great North-Eastern and South-Western Connecting.
 Great North of England and Yorkshire and Glasgow Union.
 Great Northern and Southern Connecting.
 Great Southern and Western Extension from Templemore to Nenagh and the Shannon.
 Great Southern and Western, Waterford and Limerick.
 Great South of Ireland.
 Great South and West Extension.

Great Waterford, Kilkenny, Longford, and Sligo.	Huddersfield and Liverpool.
Great Welch Central.	Huddersfield and North Union.
Great Welch Junction.	Hull and Barnsley Junction Extension to Rotherham, Sheffield, Market Weighton, and Driffield.
Great West of England.	Hull, Birmingham, and Swansea.
Great Western, Birmingham, and City Extension.	Hull, Doncaster, and London.
Great Western and Cornwall Junction.	Hull and Gloucester.
Great Western Extension.	Hull and Gainsborough.
Great Western, Southampton, and Eastern Counties.	Hull, Great Grimsby, Manchester, and Liverpool.
Great Western, Uxbridge, and Staines Junction.	Hull, Great Grimsby, and Southampton.
Greenwich and Blackwall Extension to Gravesend.	Hull and Great North of England.
Guernsey Railway and Pier.	Hull and Holyhead Direct.
Halifax and Hull Direct.	Hull and Newcastle-upon-Tyne Direct Union.
Harrogate and Knaresborough.	Hull, Northampton, and Southampton.
Harrogate, Knaresborough, and York.	Hull, Sheffield, and Midland Direct.
Harrogate and Ripon Junction.	Hull and York Direct.
Harwich and Bristol Direct, and Eastern Counties and Great Western Junction.	Hungerford-bridge and Canterbury, Ramsgate, &c.
Harwich, Colchester, Hertford, Oxford, Cirencester, and Bristol.	Huntingdon, Isle of Ely, &c.
Harwich Dock, and Birmingham, and Central England.	Ipswich and Yarmouth Coast.
Hawick and Carlisle, or North British and Caledonian Junction.	Ditto Extension to Norwich.
Hayle.	Ireland, Fishguard and London Direct.
Hebden-bridge and Keighley Junction.	Irish Central and Wicklow Harbour Improvement.
Hereford and Gloucester.	Irish Great Midland Connecting.
Hereford and Kidderminster.	Irish Great Western (Branch to Tuam, Castlebar, and Westport).
Hereford and Merthyr Tydvil.	Irish North-Western.
Herefordshire, Gloucestershire, South Wales, and Worcester.	Irish West Coast.
Hereford, Shrewsbury, and Stafford.	Irish West Midland, Belfast, and Eastern Ports Junction.
Hereford and Tregaron.	Isle of Ely, Wisbeach, and Lincolnshire Junction.
Hereford, Worcester, and Birmingham Junction.	Ditto Extension.
Herne-bay, Canterbury, and Dover.	Isle of Guernsey.
Herne-bay, Canterbury, and Faversham.	Isle of Jersey.
Herne-bay, Margate, and Ramsgate.	Isle of Man.
Hertford and Ware, Royston, and Cambridge.	Isle of Wight.
Holbeach and Peterborough.	Keighley, Halifax, and Huddersfield.
Horncastle and Spilsby.	Kent and Essex Union.
Holderness.	Kentish
Howden, Clough, and Cockersdale Valley Extension.	Kentish Coast.
Huddersfield, Ashton-under-Lyne, and Macclesfield.	Kidderminster and Shrewsbury.
Huddersfield, Halifax, and Bradford Union.	Kilkenny Junction,
Huddersfield, Holmfirth, and Upper Abegg.	Kilrush and Belfast Extension.
	Kilrush, Kilkree, Dublin, and Belfast Junction.
	Kingstown and Bray.
	Lancashire and North Riding.
	Lancashire and Yorkshire Junction.
	Lancaster and Newcastle Direct.
	Launceston and Rock.
	Larne and Carrickfergus.

Leamington and Cheltenham Direct.
 Leeds and Bradford, Lancaster and Carlisle.
 Leeds and Carlisle.
 Leeds, Fleetwood, and Liverpool.
 Leeds, Hexham, and Newcastle.
 Leek and Mansfield.
 Leicester, Ashby-de-la-Zouch, Burton-on-Trent, and Stafford.
 Leicester and Grantham.
 Leicester and Great Grimsby.
 Leicester, Huntingdon, Cambridge, and Harwich.
 Leicester, Melton Mowbray, and Boston.
 Leicester, Melton Mowbray, and Spalding.
 Leicester and Tamworth.
 Leicester, Tamworth, Walsall, Wolverhampton, and Shrewsbury.
 Leicester, Tean and Dove Valley, and Stafford Junction.
 Leicester and Warwick.
 Limerick and Belfast Direct Union.
 Limerick and Ennis.
 Limerick and Waterford.
 Limerick Western.
 Lincoln, East Retford, and Sheffield.
 Lincoln Extension, and Lincoln, York, and Leeds Junction.
 Lincoln, Horncastle, Boston, Spalding, and Peterborough.
 Lincoln, Horncastle, Spilsby, and Wainfleet-haven.
 Lincoln, Hull, and York Direct.
 Lincoln, Hull, Mansfield, and Holyhead.
 Lincoln, Louth, and Great Grimsby.
 Lincoln and Market-raisin.
 Lincoln and Northampton.
 Lincoln and Retford Junction.
 Lincolnshire and Eastern Counties.
 Lincoln and Wakefield.
 Lincolnshire Junction.
 Lincoln, York, and Leeds.
 Lincoln, York, and Leeds Direct and Independent.
 Liskeard and Carradon.
 Lichfield, Leicester, Peterborough, and Norwich.
 Lichfield, Walsall, and Wolverhampton.
 Liverpool and Birkenhead Railway-bridge.
 Liverpool and Boston.
 Liverpool and Bristol.
 Liverpool, Crosby, and Fernby.
 Liverpool and Derby.
 Liverpool and Derby Direct, and Liverpool and Manchester Grand Junction and Midland Counties.
 Liverpool and Hull Direct.
 Liverpool, Manchester, and Hull.
 Liverpool, Manchester, Bristol, and South Wales.
 Liverpool, Manchester, and Great Grimsby.
 Liverpool, North Wales, and Dublin.
 Llanellay Railway Dock.
 London.
 London, Bath, and Bridgewater.
 London, Bath, and Bristol Direct.
 London, Buckinghamshire, and Warwickshire Central.
 London and Cambridge Direct.
 London, Carlisle, and Glasgow Connecting.
 London and Chatham, and Chatham and Portamouth.
 London, Chatham, and North Kent.
 London and Chichester, viâ Cotworth and Midhurst.
 London, Chichester, and Selsea Direct Railway, Harbours, and Dock.
 London Circle.
 London Concentral Exchange and Junction.
 Londonderry, Ballyshannon, and Sligo.
 Londonderry and Newtownlimavady.
 London, Devizes, and Bridgewater Direct Western.
 London Docks, St. Katherine's Docks, and Eastern Counties Junction.
 London, Dover, Salisbury, and Yeovil Junction.
 London and Edinburgh Direct.
 London and Epping.
 London and Falmouth Direct.
 London, Falmouth, and Penzance.
 London and Gravesend (Tilbury Fort), and London and Hampton Court.
 London and Harrow-on-the-Hill Direct.
 London, Hastings, and St. Leonard's Direct.
 London, Hastings, and Rye Harbour Direct.
 London, Holyhead, and Port Dynllaen.
 London, Jersey, Guernsey, and North-West of France Junction Railway and Pier.
 London Junction.
 London, Leatherhead, and Dorking.
 London and Liverpool Direct.
 London, Liverpool, Manchester, and

- Leeds, via Eastern Counties Railway.
 London Main Trunk Railways Junction.
 London and Northampton Direct Atmospheric.
 London and Nottingham, and Sheffield.
 London and Portsmouth (with branch to Fareham).
 London and Portsmouth (with branch to Shoreham).
 London and Portsmouth Maritime Dock Junction Railway.
 London and Southend Railway and Dock.
 London, Staines, Ascot, and Reading Junction.
 London Union.
 London and West Herts.
 London, Woolwich, and Gravesend.
 London and York Extension and Northern Junction.
 London and York and Horncastle Junction.
 London and York, Leeds and Doncaster Junction.
 Louth and Gainsborough Direct.
 Lowestoft and Reedham.
 Ludlow, Bridgenorth, and Wolverhampton, or South Staffordshire Continuation.
 Lyme Regis and Taunton Railway, and Lyme Regis and Harbour Improvement.
 Lynn and Bury St. Edmund's Direct.
 Lynn, Suttonbridge, and Peterborough.
 Lynn and Thetford.
 Macclesfield and Grand Junction.
 Macclesfield and Lichfield Continuation.
 Macclesfield, Liverpool, and Birkenhead.
 Macclesfield and Rugby.
 Manchester, Ashton, and North Derbyshire.
 Manchester, Barnsley, and Goole.
 Manchester and Birkenhead Continuation, and Mold, Rhosabon, and North Wales.
 Manchester, Birmingham, and Southampton, Direct.
 Manchester and Birmingham, and Trent Valley Junction.
 Manchester and Bristol Direct.
 Manchester, Burnley, Settle, and Carlisle Direct.
 Manchester and Buxton Extension.
 Manchester Canal Navigation and Railway.
 Manchester and Carlisle Junction.
 Manchester, Chesterfield, Gainsborough, and Great Grimsby Union.
 Manchester District Circle and Lancashire and Cheshire Junction.
 Manchester, Durham, and Newcastle Direct.
 Manchester Extension.
 Manchester, Gloucester, and Bristol.
 Manchester, Hebden-bridge, and Keighley Junction.
 Manchester, Heywood, and Burnley.
 Manchester, Huddersfield, Barnsley and Goole Junction.
 Manchester and Lincoln Direct.
 Manchester, Liverpool, and Great North of England Union.
 Manchester, Liverpool, and Newcastle Junction.
 Manchester and Macclesfield.
 Manchester, Macclesfield, and Tamworth Direct.
 Manchester and Milfordhaven.
 Manchester and Oldham Atmospheric.
 Manchester, Oldham, and Huddersfield Junction.
 Manchester, Oldham, and Leeds Direct.
 Manchester, Penistone, and Hull Junction.
 Manchester, Potteries, and London.
 Manchester and Rugby Direct.
 Manchester and Sheffield.
 Manchester and Southampton Extension, and Droitwich, Dudley, and Kent Midland Junction.
 Manchester and Wigan.
 Market-Harbour, Melton Mowbray, Long Eaton, Newark and Grant-ham, or the Nottinghamshire, Lincolnshire, and Northamptonshire Union.
 Matlock and Midland.
 Merthyr and Swansea.
 Merthyr-Tydvil and Hereford.
 Metropolitan Central Junction.
 Metropolitan Railway and Improvement.
 Metropolitan River Junction.
 Metropolitan South Suburban Atmospheric.
 Middlesex and Surrey Grand Junction.
 Middlesex and Surrey Junction.
 Middleton and Surrey Union.

Midland Counties Coal-fields and Carriers' Railway Company.	Northampton and Bradford.
Midland Counties Extension.	Northampton, Daventry, Leamington, and Warwick.
Midland Counties Junction.	Northamptonshire, Leicestershire, Nottinghamshire, and Lincolnshire Junction.
Midland Counties Grand Junction.	North Cornwall.
Midland and Great North of England Junction.	North Derbyshire Union.
Midland, Manchester and Southampton, and Warwick and Swindon.	North Devon Extension.
Midlands Junction.	North-Eastern.
Midland and South-Eastern Counties Junction.	North and East Riding Junction.
Midland and South-Eastern Counties Junction (No. 2).	Northern and Eastern and York.
Monmouthshire (Newport to Nantyglo).	Northern and Southern Junction.
Monmouth and Welsh Midland Junction.	Northern Trunk Railway of England.
Montgomeryshire Mineral.	North Metropolitan Junction.
Montgomeryshire and Shrewsbury Junction.	North Middlesex and Grand Metropolitan Junction.
Newark and Sheffield Extension to Sleaford and Grantham.	North of England, Midland Counties, and Southampton Union, Reading and Southampton Junction.
New Branch to Cavendish and Clare.	North and South London Junction.
Newbury and South-Western Junction.	North and South Wales Union.
Newcastle and Hawick.	Northumberland.
Newcastle and London Coal.	North Union, Trent Valley, and Midland Counties Junction, and Macclesfield, Warrington, and Liverpool Direct.
Newcastle, Shotley and Weardale Junction.	North Walsham, and Yarmouth Junction.
Newcastle-upon-Tyne and Hartlepool Junction.	Norwich, Bungay, and Halesworth.
Newcastle-upon-Tyne and Hawick.	Norwich and Exeter, Bedford, and Andover Junction.
Newcastle-upon-Tyne and Hawick, Edinburgh and Glasgow Junction.	Norwich, Nottingham, and Manchester.
Newcastle-upon-Tyne and Shotley Bridge.	Nottingham and Bedford.
New Churnet Valley.	Nottingham and Birmingham.
New London and Birmingham.	Nottingham, Birmingham, and Coventry.
Newport, Builth, Aberystwith, and Gloucester Junction.	Nottingham and Birmingham Direct.
Newport and Merthyr.	Nottingham and Boston.
Newport and Merthyr-Tydvil.	Nottingham and Boston, and Grand Union Junction.
Newport, Westport, Castlebar, and Kells.	Nottingham and Erewash.
New Ross and Carlow Junction.	Nottingham and Erewash Valley, Ambergate, and Manchester.
New Ross and Slade Railway and Harbour Company.	Nottingham, Ambergate, Goole, and Howden Junction.
Newry and Castleblaney.	Nottingham and Grantham.
Newry, Keady, and Castleblaney Junction.	Nottingham and Leicester.
Newry and Warrenpoint.	Nottingham and Mansfield.
New Western Railway — London, Bath, and Exeter Direct Line.	Nottingham, Midlands, and Tean and Dove Valley Union.
Norfolk Midlands and Western Junction.	Nottingham, Vale of Belvoir, and Grantham.
Northallerton and Carlisle Junction.	Nottingham and Wolverhampton Junction.
Northampton, Bedford, Colchester, and Harwich.	Nuneaton and Ashby-de-la-Zouch.

<p> Oldham, St. Helen's, and Liverpool Junction. Orwastrey and Bangor. Oxford, Bampton, Burford, Cirencester, Malmesbury, and Bath Direct. Oxford and Birmingham Junction. Oxford and Didcot. Oxford Direct. Oxford and Dover Junction. Oxford and Gloucester. Oxford, Hungerford, and Salisbury Junction. Oxford and Slough Junction. Oxford, Southampton, and Gosport Extension. Oxford and Southampton Junction. Oxford, Swindon, Devizes, Salisbury, and Lymington. Oxford, Windsor, and Reigate. Oxford, Witney, Cheltenham, and Gloucester Independent Extension. Oxford and Worcester. Oxford and Worcester Extension. Paddington and St. Alban's. Patricroft, Stockport, and Macclesfield Junction. Peterborough and Buckinghamshire Junction. Peterborough, Huntingdon, St. Neots, and Bedford. Filbrow's Atmospheric. Plymouth, Bideford, Statton, and Mellock. Plymouth and Central Cornwall Junction. Pontop and South Shields. Pontypool and Blaenavon. Pontypool and Port-Llanxfrith. Poole, Yeovil, and Channels Junction. Portarlington and Tullamore. Port of London Commercial Junction. Port of Wisbeach, Peterborough, Birmingham, and Midland Counties Union. Portross and South Shields. Portsmouth Direct. Portsmouth, Winchester, Andover, and Cheltenham Junction. Preston and Leeds Direct, and Lancashire and Yorkshire Junction. Preston and Wigan. Ramsgate, Margate, Herne-bay, Faversham, and London. Reading and Reigate Junction. Regent Junction. </p>	<p> Regent's Canal Railroad or Grand Metropolitan Railway and River Junction. Regent's Canal Railway and Eastern Extensions. Rhondda Vale and Neath and Taff Vales Junction. Ribble and Humber Junction. Rochdale, Haywood, and Manchester. Rotherham, Bawtry, and Gainsborough Junction. Rugby, Ashby-de-la-Zouch, and Burton-upon-Trent. Rugby and Cambridge Direct. Rugby and Cheltenham. Rugby, Derby, and Manchester. Rugby, Lichfield, and Stafford Direct. Rugby, Market Harborough, and Cambridge. Rugby, Worcester, and Tring. Rutland, Northampton, and Lincoln. Ryde and Ventnor. Rye and Tenterden. Saddlebrook, Oldham, and Worsley Junction. St. Alban's. St. Alban's and Hatfield. St. David's and London Direct. St. Helen's and Runcorn Gap. St. Ives Junction. St. Ives and Wisbeach. Salisbury, Blandford, and Dorchester Junction. Salisbury and Dorsetshire. Salisbury and Lymington Junction Railway and Port of Lymington Improvement. Scarborough, Whitby, Stockton-on-Tees, and Newcastle and North Junction. Scottish Western. Severn Docks Pier and Harbour Railway. Severn Vale. Severn and Wye. Sheerness, Canterbury, and Dover. Sheffield, Ashton-under-Lyne, and Manchester. Sheffield, Barnsley, and Wakefield. Sheffield, Crewe, and Shrewsbury. Sheffield and Lincoln. Sheffield and Lincolnshire Extensions. Sheffield, Macclesfield, and Chester. Sheffield, Midland, and Hull Direct. Sheffield and Nottingham. Sheffield, Shrewsbury, and South Wales. </p>
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Sheffield and South Staffordshire Direct.	South Midland, or Northampton, Leicester, and Syston.
Sheffield, Wakefield, and West Midland.	South Midland, or Northampton and Syston.
Sheffield, West Riding, and Midlands Junction.	South and Midlands Junction, and Bicester, Swindon, Marlborough, Devizes, and Salisbury.
Shrewsbury, Chester, and Crewe.	South Midlands and Southampton Junction.
Shrewsbury, Drayton, and Newcastle-under-Lyne.	South and North Devon.
Shrewsbury and Grand Junction.	Southport and Euxton.
Shrewsbury, Herefordshire, and North Wales.	Southport and Euxton Junction.
Shrewsbury and Lichfield.	South Staffordshire Junction.
Shrewsbury and Northwich.	South Thames Junction.
Shrewsbury Potteries and Sheffield.	Southwark and South Western Junction.
Shrewsbury and the Potteries.	South Western Junction and Extension.
Shrewsbury, Sheffield, and Goole.	South Western and Midland Counties Union.
Shrewsbury, Staffordshire Potteries, and Sheffield.	South Western and Midland and Eastern Counties Grand Union.
Shrewsbury and Trent Valley Union.	Spalding and Fosdyke.
Shrewsbury and Wolverhampton.	Stafford and Chester, or Trent Valley Extension.
Sligo, Ballina, and Westport.	Stafford and Sheffield Direct.
Sligo, Donegal, Tyrone, Londonderry, and Belfast.	Staffordshire Potteries.
Somersetshire.	Staffordshire Potteries and Liverpool and Manchester Direct.
Southampton and Birmingham.	Stafford, Uttoxeter, and Mansfield.
Southampton and Great Western Junction.	Staines and Basingstoke, and Staines and Reading.
Southampton and London Direct.	Staines and Farnborough.
Southampton and Oxford.	Staines and Leatherhead.
Southampton and Petersfield.	Staines and Newbury Junction.
Southampton, Petersfield, and London Direct.	Stamford and Leicester, Market Harborough, and Northampton Junction.
Southampton and Falmouth Coast.	Stamford, Market Harborough, and Rugby Junction.
Southampton, Portsmouth, and Langston Dock.	Stamford and Spalding.
Southampton, Portsmouth, Rochester, and Chatham.	Stanhope and Tyne.
Southampton and Salisbury Junction.	Stockport and Rugby.
South Coast Junction.	Stockton and Darlington, Whitby and Scarborough.
South Durham.	Stockton and Hartlepool.
Southern Counties Union, and Bristol, Bath, and Dover Direct.	Stockton and Leeds.
Southern Grand Junction Railway and Pier.	Stockton, Northallerton, and Leeds.
Southern Junction.	Stockton, Northallerton, Thirsk, and Leeds.
Southern and South Midland.	Stockton-upon-Tees Dock and Railway.
South Junction.	Stockton and Whitby.
South Lancashire, Birkenhead, and Potteries Junction.	Stourbridge, Dudley, and Birmingham.
South Lancashire Union, or Southport, Ormskirk, and St. Helen's.	Stratford and Moreton.
South London.	Stratford and Thames Junction.
South London Suburban.	Suburban Metropolitan Grand Union Junction.
South London and Windsor.	
South Midland Extension to Bedford and Huntingdon.	
South Midland Continuation.	
South Midland and North Union.	

Sunderland, Durham, and Auckland Union.	Western (Great), Uxbridge, and Staines Junction.
Sutton, Bridgeport, Stamford, Leicester and Birmingham and Midlands Junction.	Western, Midland, and Eastern Union.
Swansea, Neath, and Merthyr.	West Highland and Firth and Clyde Valley Junction.
Tamworth, Walsall, and Wolverhampton.	West Lancashire and North Union.
Thames Embankment and City.	West London Knightsbridge Extension.
Thames Haven.	West London Thames Extension.
Thames, Southend, and Northern and Eastern Junction.	West Metropolitan and Hungerford-market Railway Terminus.
Thames Tunnel and Metropolitan Suburban.	West Midland.
Thames Valley.	West Midland, Manchester and Southampton.
Thingley and Stonehouse.	Westmoreland, Cumberland, and Lakes District.
Thurles and Nenagh Extension.	West of England.
Torquay and Newton Abbott.	West of England Centrals and Channels Junction.
Totness, Buckfastleigh, and Ashburton.	Weston-super-Mare Pier and Railway.
Trent Valley, Chester, and Holyhead Continuation.	West Riding Junction.
Trent Valley Extension.	West and South Lancashire and North Union.
Trent Valley Continuation and Holyhead Junction.	West Yorkshire, amalgamated with the Leeds and West Riding Junction under the name of the West Riding Union.
Tring, Cambridge, and Newmarket.	Wexford and Valentia Great Trunk.
Tring and Reigate.	Whitby and Pickering.
Trunk Union.	Wiley Valley.
Tullamore and Parsonstown.	Wilts, Gloucester, and Southampton.
Tunbridge Wells, Brighton, and Hastings Junction.	Wilts, Somerset, Great Western, and Gloucester.
Ulster Extension.	Wilts, Somerset, and Southampton.
Ulster Irish Centralization.	Windsor, Ascot, and Farnborough.
Uverstone and Melnithorpe Union.	Windsor, Staines, Brentford, and London Atmospheric.
United Kingdom Consolidated.	Windsor, Staines, Brentford, and West London.
Uttoxeter, Blythe Valley, and Crewe.	Windsor and Staines Direct.
Wakefield and Bradford.	Windsor, Thames Valley, and West London.
Wakefield and Harrowgate Junction.	Wisbeach and Huntingdon.
Wakefield, Leeds, Weatherby, and Thirsk.	Wishaw and Coltness.
Wakefield, Ossett, and Dewsbury.	Wolverhampton, Bilston, and Birmingham Direct.
Wakefield, Pontrefact, Barnsley, and Goole.	Wolverhampton, Birmingham, and Nottingham.
Wakefield, Pontrefact, Goole, and Great Grimsby and Gainsborough Extension.	Wolverhampton, Chester, and Birkenhead Junction.
Warwick and Birmingham Direct.	Wolverhampton, Walsall, and Atherton.
Warwick, Coventry, and Nottingham.	Wolverhampton, Walsall, Peterborough, Stamford, and Norwich.
Warwick and Cheltenham Junction.	Wolverton, Buckinghamshire, and Basingstoke.
Waterford, Fermoy, Cork, and Kilarney.	Worcester and Chester.
Waterford and Tramore, (No. 2.)	
Waterford and Rumford.	
Waveney Valley, or Thetford, Bungay, and Yarmouth.	
Welch South Midland.	
Wells and Dereham.	
Wells and Thetford (changed to Wells and Durham).	

Worcester, London, Rugby, and Oxford.	York and Carlisle.
Worcester and Marthyr-Tydvil.	York and East Lancashire.
Worcester, Shrewsbury, and Crewe Union.	York and Edinburgh Direct.
Worcester and Wolverhampton (Junction with the Birmingham and Gloucester).	York and Hull Direct.
Yarmouth and Leeds Direct.	York and Hull and East and West Yorkshire Junction.
York and Bradford.	York and Kenyon.
	Yorkshire, Derbyshire, Staffordshire, and Cheshire Junction.
	Youghall, Cork, and Port Valentia.

RAILWAY MEETINGS.

THE WEST FLANDERS RAILWAYS COMPANY.

Report of the Directors to the proprietors, at the first general meeting, held on the 13th January, 1846, at the London Tavern, Bishopsgate Street, London :—

"The Directors, at this their first general meeting of the Company, are anxious that a full statement of their proceedings from the formation of the Société Anonyme to the present time should be presented to the proprietors. With this view they beg to place before them such additional facts and information with reference to the prospects of these railways as their increased knowledge of the country and its resources has enabled them to supply.

"The convention, with the *cahier des charges*, and the statutes of the société, (which have been translated and may be obtained at the office,) were all perfected before the formation of the Company, as was stated in the prospectus.

"The deposit of 2*l.* per share became due on the 30th of June, 1845, and the first call of another 2*l.* on the 23rd of September, 1845.

"It is most satisfactory to the Directors to be able to state, that the instalments called up have been fully paid, with the exception of the second instalment on fifty shares, which, by an omission of the holder, were not presented until within the last few days, and eleven shares, on which a question has arisen.

"The amount of the money received has from time to time been remitted to Belgium at favourable rates of exchange, and a large portion of such money is invested and bearing interest. The sum of 1,000,000 francs, being the caution money originally deposited, remains in the hands of the Belgian Government, at interest at 3½ per cent. This caution money will be returned to the Company by fifths as the works proceed. The Directors have obtained from the proper authority the certificate that 2,500,000 francs have been paid up by the Company in Belgium, which certificate, in pursuance of the terms of the grant and law, puts in force the full powers conceded to the Company. The accounts annexed show at the disposal of the Directors a balance amply sufficient for the present requirements of the Company, and such as will render the consideration of a further call at present unnecessary.

"It was not until a very late period of the last session of the Belgian Chambers that the grant of these railways was sanctioned, and the concession was given under circumstances which rendered it convenient to defer the settlement of two important points, which had reference to the direction of a portion of the lines, until a future period.

"Having full confidence in the Government the grantees did not hesitate to accept the grant, subject to this arrangement.

"In one case it was left for the Company to decide, within a twelvemonth, whether it would continue the line from Dixmude to Furnes, or not; in the other case the Belgian Government was to determine whether the road from Thielt was to be carried to Aeltre,—a town on the Government line between Ghent and Bruges,—or to Deynze, on the Government line from Ghent to Courtrai.

"The importance of settling these two questions commanded the early attention of the Directors; and it is but justice to state, that they experienced from the Belgian Government throughout the whole of the subsequent proceedings the same candour and liberality which influenced it from the first negotiation for the grant.

"In August last the Directors proceeded to Bruges, and being fully convinced of the superior advantages which a line from Thielt to Deynze, as recommended by Mr. Stephenson, offered over that to Aeltre, they stated their wishes to the Minister of Public Works, and in due time, as soon as the necessary forms were completed, an *arrêté royal* was granted, authorizing the construction of the line in that direction.

"At a subsequent period, after having duly examined the country, and considered the question, the Directors formally declared their intention of making the line of railway from Dixmude to Furnes.

"Another question of very serious importance occupied the attention of the Directors. Mr. Stephenson had, in his report of July last, strongly recommended that a branch should be made from Bossuyt, on the Scheldt, to Courtrai, on the Lys, from which latter point the West Flanders Railways lead to Poperinghe, in one direction, and to Bruges in the other; in fact, commanding the whole railway communication of West Flanders. This induced the Directors to visit and inspect the proposed line, to collect at Bossuyt, Courtrai, and other places, statistical details, and to ascertain the feelings and wishes of the inhabitants of the different towns of the province. They are in consequence able duly to appreciate all the value of this branch.

"At present the great bulk of the coal, lime, and building stone consumed in West Flanders passes up the Scheldt by Bossuyt, and, by a circuitous, uncertain and expensive river navigation of about 180 miles, arrives at last at Courtrai, the distance of which town by land from Bossuyt is only nine miles. By this proposed branch this circuitous and uncertain communication will be superseded; and not only will the coal, lime, &c., which have heretofore been brought by water to Courtrai, be carried by railway, but, owing to the diminished cost, the consumption will be materially increased.

"The importance of this branch has induced the Directors to press unremittingly for a concession to the Minister of Public Works, who has on all occasions listened to them with the most encouraging attention.

"The plans having been duly deposited, the Minister lost no time in submitting them to the Conseil of the Ponts et Chaussées. The report of the Conseil has been received, and the following extract from that document will show that the proposed measure has their entire approval:—"En résumé le conseil est unanimement d'avis qu'il y a lieu sous les réserves et modifications qui précèdent d'accueillir favorablement la demande de concession dont il s'agit, la ligne projetée paraissant réunir tous les caractères d'une haute utilité publique, et ne pouvant d'ailleurs rendre tous les services qu'on est en droit d'en attendre que dans le cas où elle serait réunie comme embranchement aux lignes déjà concédées." The law for the concession will be brought before the Chambers in February next; in the mean time the inhabitants of West Flanders are expressing by petitions their anxiety that this branch should be made. The interests of the coal-owners at Mons are equally enlisted on the same side, so that it is not unreasonable to entertain strong expectations that this grant will be conceded by the Chambers. It will materially add to the resources of the West Flanders Railways.

"The Directors have great satisfaction in stating, that the steps necessary for advancing the works of the conceded lines have been unremittingly attended to.

"The working plans have been prepared according to the instructions of Mr. Stephenson; and those from that portion of the railway between Bruges and Thourout, towards Courtrai, have been approved. The land on this section of the line is expropriated; contracts are entered into for the works, which are of a remarkably light character, and there is every reason to suppose that this portion will be opened by the end of May next. Other portions will follow from time to time, especially in the direction of Courtrai; and it is expected that the line will be completed to that town in October next.

"The traffic upon thirty miles of railway between these two important towns, Bruges and Courtrai, passing through a large population, and connected at each extremity with the State lines, and from Courtrai communicating with France, will secure a large return.

"The Directors, by a circular of recent date, have informed the proprietors that one of their body has consented to reside in Belgium during the formation of these lines, in order to press them forward with his best energies, to control the expenditure, and to secure, by his experience and knowledge, the execution of the works in the most perfect and satisfactory manner; and they have now the pleasure to add, that such appointment has received the cordial approbation of the Minister of Public Works.

"The Works near Thourout, which have been let to contract, are taken at very satisfactory prices. These prices have enabled the Directors to test the general estimates, and to examine the cost of the rest of the line, on the basis of this experience of the actual offers of capable contractors. Applying these prices to the entire work, there is every reason for believing that it will be completed considerably within the capital originally estimated. The whole distance from Bruges to Thourout will be under contract during the present month.

"Contracts have been entered into with companies of the first character in Belgium for supplying fourteen locomotive engines from drawings furnished by Mr. Stephenson; in addition to these, two engines are to be supplied by Mr. Stephenson.

"The Directors are enabled to confirm, in all respects, the opinions which they have put forth as to the value of this undertaking. They believe that it will prove a sound and highly remunerative work, and that it will bring a return at a period much earlier than is usual in lines of a similar length."

CAPITAL ACCOUNT.

<i>Dr.</i>			£	s.	d.
To deposit account	42,000	Shares at 2 <i>l</i> per share	84,000	0	0
To Second Instalment	42,000	" at 2 <i>l</i> per share	84,000	0	0
To Third Instalment	25	" at 2 <i>l</i> per share	50	0	0
			<hr/>		
			£168,060	0	0
<i>Cr.</i>			£	s.	d.
By Amount received as below			167,842	0	0
By Deposits and Call not yet paid :—					
Deposit on 5 shares unpaid		£10 0 0			
2nd Instalment on 99 do.		198 0 0			
			<hr/>		
			208	0	0
			<hr/>		
			£168,060	0	0

CONSTRUCTION ACCOUNT.

Dr.			£	s.	d.
To AMOUNT OF CAPITAL RECEIVED :—					
Deposit of	2l. per share on 41,995 shares	£83,990			
2d Instalment	2l. " 41,901 "	83,802			
3d Instalment	2l. " 25 "	50			
			167,842	0	0
To Interest received on Call overdue			30	6	10
To Profit on Exchange			3,239	15	8
			£171,112	2	6
Cr.					
By AMOUNT OF DISBURSEMENTS :—					
Caution Money deposited with the Belgian Government, to be returned by Fifths as the works proceed			40,000	0	0
Commission to the Fondateurs			25,200	0	0
Engineering Account			2,026	7	3
Land, expropriation Expenses and Works			9,779	0	7
Management in Bruges			368	0	0
Furniture, Fixtures, &c.			490	7	11
Locomotive Account,—amount paid on Contracts entered into			2,423	4	0
Advertisement Account			195	18	8
Salaries			632	3	4
Rent			49	8	9
Stationery, Printing, &c.			331	11	1
General charges,—for Amount paid to Government Engineer, Travelling Expenses, Postage, &c.			1,061	16	6
Insurance Account			4	5	
Interest Account on account of First Payment			1,000	0	0
			£83,558	12	6
By Balance at the Bankers of the Company			87,553	10	0
			£171,112	2	6

THE RIVER DEE AND RAILWAY PROJECTS.

At a meeting of the Chester town council, held on Friday, Jan. 7, the following proceedings took place relative to the Mold Junction, the Birkenhead and Holyhead Junction, the Liverpool, Birkenhead, Parkgate, and Holyhead, and the Birkenhead and Vale of Llangollen Railways :—

Mr. Trevor said the River Dee committee had met that morning, and agreed to a report, which embodied the whole of their proceedings since the last meeting. It was as follows :—

"The committee report that as the various railway projects for crossing the tidal navigation of the river had returned the Crown as being the owner thereof, they deemed it necessary to point out the objectionable nature of those projects to the Lords of the Admiralty and the Commissioners of Woods and Forests, setting forth the direct rights and interests of the town council in the river ; and also calling upon those boards to withhold their consent from the said projects, in protection of the rights of the town council, and also of the public generally.

"The Board of Admiralty have written a most satisfactory answer, stating for the information of the town council 'that they will not give their consent to any railway viaduct or other bridge across the Dee, which may injuriously affect the navigation of that river, if proposed to be placed lower down the stream than the existing bridge ; nor to any tunnel under the Dee unless it be made at such a depth as not to prevent the fullest improvement of the navigation.'

"The Lords of the Admiralty also applied to the committee for any plans they might possess for improving the navigation; and the committee transmitted to that board two copies of Mr. Stevenson's surveys and reports, as given in evidence before the Tidal Harbour Commissioners.

"The Commissioners of Woods and Forests have also applied for a statement of the grounds of the claim of the town council to the right referred to in the communication of the committee. It appears to the committee that this information is required for the purpose of satisfying that board that the town council possesses those rights which it seeks to have protected; and the committee think it desirable that such information should be furnished forthwith.

"The committee, on mature consideration of the direct interest of the town council in the river and trade thereon, and the magnitude of interests involved connected with the property and trade of the city, deemed it advisable to submit the plans of the four railway projects to Mr. David Stevenson, of Edinburgh, and they have received his report, accompanied by explanatory tracings and plans. The report is a most able and elaborate document, and the engineering data upon which the conclusions of the reporter are based, are set forth with great precision. The report incontrovertibly proves that all four projects are at variance with the general principles upon which alone the consent of the Government and the Admiralty can be obtained; and in the opinion of the committee it is quite conclusive as to their injurious tendency, and that they would not only interfere with the existing navigation, but also be obstructive of those needful improvements of which it is capable. Connecting this report with the strongly-expressed opinion of the Lords of the Admiralty, the committee have no apprehension that any of the projects can possibly obtain the requisite consent of the Government authorities to enable them to proceed; on the contrary, they feel the strongest possible conviction that that consent will be withheld.

"It will, however, be necessary to submit copies of that report and of the plans which accompany it, and also an appendix embodying some local information, to the Lords of the Admiralty, the Commissioners of Woods and Forests, the Tidal Harbour Commissioners, and other public boards. It will be desirable, therefore, and in fact more economical, that the report should be printed, and the plans lithographed, for the use of the committee and the council, the expense of which the committee are advised will not exceed 10*l*.

"Several public companies connected with the city of Chester, landowners, merchants, shipowners, and others connected with the river and the trade of the city, have an equal interest in opposing these projects with the town council; and the committee think it is desirable that they should from time to time communicate with those parties, in order that by a combined defence of their interests, and of the public rights, these aggressive schemes may be more signally defeated, and at a less cost than if the town council should oppose singly; subject, nevertheless, at all times, to the direction and approval of the council."

GLASGOW, PAISLEY, KILMARNOCK, AND Ayr RAILWAY.

A special general meeting of the shareholders in this company was held Jan. 8th, at Bridge Street, Glasgow.

James M'Call, Esq., in the chair.

The meeting was numerously attended. A report was read by Mr. Smith, the Secretary; its substance may be gathered from what follows.

The Chairman then said—Your directors, in recommending this report for your adoption, feel that they require to ask you to place complete confidence in their discretion. Without entering into the various reasons for each of these schemes, the object of your directors is to afford every reasonable railway accommodation to the counties of Ayr and Renfrew, where it can be done without loss to your company, and also to protect your interests from injury by the projects of rival companies. In saying this, I beg to assure

this meeting that the directors are anxious and willing to be upon the very best terms with neighbouring railways. The same feeling has been publicly expressed by the chairman of the Caledonian Railway. A report has been circulated, as I have been informed by some persons connected with the Caledonian Railway, that your directors are very untractable. Under these circumstances, I think it right to state shortly how my actions, as your chairman, correspond with what I have stated to be the wish of your directors. Some months ago, upon reading the speech of the chairman of the Caledonian railway, expressing his wish to be on amicable terms with neighbouring railways, I communicated with him, and said that, as his views so coincided with mine, I thought a meeting between us might lead to some amicable arrangement. We met accordingly, and the best feelings were exhibited, and the strongest wishes displayed by both parties for an amicable adjustment: nevertheless no arrangement has been made; on the contrary, since that meeting the Caledonian directors have (so we understand) made an arrangement with the Barrhead, Kilmarnock, and Ardrossan proposed lines, and which throws a new difficulty in the way of your company coming to such an amicable arrangement as must be desirable. From the fair and candid communication of the chairman of the Caledonian Railway, I am convinced of his good feeling, and I can only suppose that circumstances over which he had no control have prevented any arrangement being proposed. As to the Barrhead, Kilmarnock, and Ardrossan lines, I cannot see what possible traffic they can have to repay the proprietary for so large an outlay as will be required by these companies, amounting to about a million sterling. Should the Kilmarnock and Ardrossan Company succeed in obtaining an Act to make their railway, they must compete with us for the traffic to Kilmarnock and Ardrossan, which, combined together, will never support one railway; besides, the traffic to Ardrossan Harbour will be competed for by the Troon Harbour (applause). I have much pleasure in stating that I believe, taking the situation of your railway, notwithstanding all its contingencies, into consideration, that there is no railway with fairer or brighter prospects than yours (applause). The secretary will read the resolutions which the directors have thought it right to submit for your approval. They are as follows:—

"1. That the report by the board of directors to the shareholders now read to the meeting be received and approved of, and that authority be now given by this meeting to the directors to proceed with the business as they shall deem expedient.

"2. That the agreements between this company and the Paisley, Hurler, and Barrhead Railway Company, the Glasgow and Belfast Union Railway Company, and the Glasgow, Paisley, and Johnstone Canal Company, now submitted to this meeting, be confirmed and sealed with the seal of the company.

"3. That the draft agreements between this company and the Ayrshire, Bridge of Weir, and Port Glasgow Railway Company, the Hamilton Strathaven Railway Company, and the Glasgow, Dumfries, and Carlisle Railway Company, now submitted to this meeting, be referred to the directors, and power given to them to complete the same with or without amendments, and to affix the seal of the company thereto."

The first resolution was put and carried unanimously. The second was read, when

Mr. Leadbetter said, with regard to one portion of the resolution, he would beg leave, for the information of the meeting, to state what were the prospects of one of the concerns referred to—viz., the Glasgow and Belfast Union Railway. As deputy chairman of that company, he had great pleasure in informing the meeting that every step had been taken in regard to that important measure which had been deemed necessary, and that the company would be in a good condition to appear early in Parliament and ask its sanction. There were a number of arrangements going on with the proprie-

tors with regard to obtaining the necessary property, which were accompanied with some little difficulty. But he could assure them that, generally, the proprietors all along the line were warmly in favour of this undertaking (applause). One of the most important features in this undertaking was its connexion with Ireland. The line only went to Stranraer, but the British and Irish Union Railway reached Port Patrick and Stranraer, and it was proposed that the two lines should meet at Stranraer; but if it should turn out, as every measure was exposed to a contingency, that the British and Irish Union Company should fail in getting their bill, then the other line was deprived of railway communication with Port Patrick. This had occurred to the committee as a very important view of the subject, and in order to provide against the possibility of such an occurrence, that it would be both for their interest and the interest of the Ayrshire Company to give notice of making a line to Port Patrick if the British and Irish Union failed in getting their bill. This was merely as a precautionary step, and would not be carried into effect if the British and Irish Union obtained powers to make their line to Port Patrick. But it was necessary that the Glasgow and Ayr Company should extend their guarantee to this portion of the undertaking, which would be relinquished in favour of the British and Irish Union in the event of their succeeding in obtaining their bill. It was of the greatest consequence to be on the best possible footing with that company, as most of the traffic from their line came along the Glasgow and Belfast line, and *vice versa*. He recommended them to empower the directors to enter into this arrangement. It had only occurred to him yesterday, or he should have laid the proposition before the directors first, to whom he apologised; but it would be indispensable to obtain the sanction of the shareholders before such an arrangement could be entered into. Much depended, in regard to these lines, on what place the Government determined upon for the packet station for Ireland. There were three competitors: Lochryan; the existing station, which was thought very favourably of by some; and the other was a harbour to the south of Port Logan. All this had to be brought before the Government, and a decision given before any of the railway companies would undertake to form that line. He then concluded by moving the following resolution:—"That the Glasgow and Belfast Union Company, having found it expedient to give notice for an extension of their line from Stranraer to Port Patrick, to provide against any contingency of the British and Irish Union Company not obtaining their bill in the approaching session of Parliament, that this meeting authorise the directors to enlarge the guarantee of this company, by extending the former percentage to an additional capital sum, not exceeding 100,000*l.*, for the purpose of constructing an extension to Port Patrick, provided they are satisfied that such a measure is for the interest of this company."

The motion was adopted unanimously; as was also the third resolution.

Mr. Leadbetter again rose and said, as chairman of the Dumfries and Carlisle Railway Company, with regard to the prospects of that undertaking, he was happy to say that they were in a good condition to go to Parliament, and were receiving a greater degree of local support than they did on a former occasion. In fact, he might say, there was not a town or village on the line but was decidedly in favour of this railway, and opposed to any other interfering with it. In short, they were prepared to support it in every possible way (applause). He had also much pleasure in being able to state, that the most influential noblemen and gentlemen along the line would give their warm support and influence to the line, and extend their support to strenuously opposing any other line (applause). When he looked back on the events of the last year, and considered the character of this undertaking passing down the valley of Nith, and effecting a communication in the way and through the very spot that nature had pointed out between Dumfries and Ayrshire, he could not doubt for a moment that if one half of the undertakings that were to come before Parliament were to receive its sanction,

that the Dumfries and Carlisle ought especially to do so (applause). There could be no reasonable ground of opposition to the line to Dumfries; but from Dumfries to Gretna the Caledonian Company, their old opponents, had laid down a line exactly similar to this. Of course they must be met and opposed in Parliament. He thought it was more incumbent upon this company to do so, because this portion of the line was the most valuable between Gretna and Cumnock, and for this company to make a line down the valley of the Nith, and abandon this portion of it, he thought would be a dereliction of duty on their part (applause). He trusted that the whole interest and support of this company, which was so identified with the interest of the Dumfries and Carlisle Company's undertaking, would be zealously given to it. After referring to the great advantages of railway communication, and the facilities it afforded for developing the resources of the country, Mr. L. then proposed that powers should be taken in the bill for which they were about to apply to change the name of the company, as it did not appear to him that—seeing the extensive field in which they were engaged—their present cognomen was sufficiently indicative of the extent of their operations. He said he should be glad to hear the opinion of the meeting upon the subject, but he thought that some such name as the Glasgow and South-Western Railway of Scotland would be far more appropriate than their present one.

The chairman quite concurred in the remarks of Mr. Leadbetter that the title was not the most appropriate one; but he suggested that it should be left for the consideration of the directors.

This suggestion was agreed to.

RENFREW AND Ayr COUNTIES RAILWAY.

On Tuesday, 5th January, a general meeting of the shareholders in this railway took place in the Star Hotel, George Square, for the purpose of receiving the report of the provisional committee of management. John Bain, Esq., of Morriston, was called to the chair.

Robert Lamond, Esq., the solicitor to the company, read the report of the committee; from which it appeared that the plans and sections had been completed, and duly lodged with the Board of Trade, and that all the preparatory steps had been adopted.

The Secretary afterwards read a number of letters from shareholders, recommending to defer proceedings until another session, in order that the business might be gone more leisurely about, and the line resurveyed.

The Chairman said that every thing necessary in forwarding the bill had been performed; but, as times were peculiar, it was thought best to call the present meeting to hear the opinions of all concerned as to whether the scheme should be abandoned altogether, or whether it should merely be postponed to another opportunity.

Mr. George Mills put a number of questions as to the practicability and the working of the line, to which satisfactory answers were given, one of which was that the traffic was expected to yield 9½ per cent.

In the course of the proceedings a good deal of discussion as to minor matters occurred, in which Mr. Russell, Mr. Rutherglen, Mr. Mills, and Mr. Steel, the sheriff of Dumbartonshire, took part. All the speakers expressed the utmost satisfaction with the manner in which the affairs of the company had been conducted by the directors. "Not a syllable," as one of them emphatically said, "could be breathed against the management of the directors or the secretary throughout the whole business." In conclusion,

Mr. Mills moved the adoption of the report, which was seconded by Mr. Baird; and the meeting unanimously resolved that the scheme be postponed for a year—that the provisional committee repay 1*l.* 15*s.* per share to the scripholders on Tuesday, the 13th of January, retaining the balance in bank, to meet expenses—that the whole accounts be immediately got in and paid,

and any balance that remains paid back to the scrip-holders, the payment being marked on the face of the scrip; that the subscribers to the deed be relieved of all obligations and liabilities subsequent to this date; and that the accounts be remitted to a committee of subscribers and holders of scrip consisting of Messrs. Bain, Bankier, Russell, and Rutherglen, and be approved of by them before being paid.

The thanks of the meeting were then moved and unanimously tendered to the directors for their conduct throughout.

WORCESTER CANAL NAVIGATION.

Jan. 6th. A very numerous assemblage of the above proprietary took place at their offices, Canal Wharf, for the purpose of transacting the half-yearly business of the company.

In the month of October last the proprietary established a company for the purpose of commencing a railway at Birmingham, near the Worcester and Birmingham Canal Wharf, and which was to proceed, with deviations, along the bank of the canal to Stoke Prior; from which place it was to proceed along the Oxford, Worcester, and Wolverhampton Railway, to Worcester, and there join the Worcester, Hereford, Ross, and Gloucester Railway, and other lines entering that city. The project was spiritedly taken up, and a provisional committee was appointed. Shares were issued and allotments made, and every thing was going on favourably, when the panic set in. The consequence was the abandonment of this as well as other valuable schemes, which would have caused an immense outlay of capital amongst the inhabitants of this district.

The report of the committee to-day, in reference to the abandonment of the project, was the main feature in the proceedings.

William Beale, Esq., having taken the chair,

Mr. Hodgkinson, the secretary of the company, read the report, which detailed at length the transactions of the company with respect to the intended line. The document stated that, although the shares had been allotted, the surveys completed, the plans prepared, and the parliamentary standing orders fully complied with, the directors found it necessary, in consequence of the panic in the share market, to suspend all proceedings, and postpone their application to Parliament until the session of 1847. In the interim the committee recommended that the whole of the deposits be forthwith returned to the shareholders free of any deduction, and that the entire expense attending the past proceedings be paid out of the funds of the canal company.

The report was adopted, and it was unanimously resolved that the course recommended by the committee should be acted upon.

With reference to the canal property, it appeared from the returns that, notwithstanding the continued low rate of tonnage, the receipts had increased 800*l.* in the half-year, with every prospect of a continued improvement.

A dividend of 1*l.* 10*s.* per share was then declared, leaving a sufficient amount of money in the hands of the treasurer to defray all the probable expenses attending the vigilance necessary to protect the interest of the company against any unfavourable projects now before Parliament, after which the meeting separated.

MANCHESTER AND BIRMINGHAM RAILWAY. SPECIAL GENERAL MEETING.

A very numerous meeting of the shareholders of this company was held at Manchester, Jan. 12, in the large room at the station in this town, for the special purpose of considering the propriety, and, if so determined, of authorising the Manchester and Birmingham Railway Company to subscribe towards or purchase shares in the following railways or undertakings, or some

or one of them—that is to say, the Manchester, Buxton, Matlock, and Midlands Junction Railway, the Shropshire Union Railway and Canal Company, and the Manchester and Hyde Company; and also for the purpose of obtaining or refusing the authority or sanction of the said proprietors to the directors proceeding to obtain an act or acts of Parliament, in the next or some subsequent sessions of Parliament, for powers to construct the several branch railways in connexion with the Manchester and Birmingham Railway, for which plans and sections have already been deposited, pursuant to the standing orders; and also for obtaining or withholding the approbation or sanction of the said proprietors to the directors opposing any other railways or projects which may in their judgment or otherwise be considered prejudicial to this company, and for effecting any arrangements with other companies for the purpose of such opposition, or which may appear likely to promote the interests of this company, and on other special business.

Mr. J. P. Westhead, chairman of the board of directors, presided.

The Chairman said that some time ago application had been made to the directors from parties residing in the neighbourhood of Hyde for the construction of a branch line from Langsight to that town, and on inquiry the company found that it would cost 150,000*l.*, one-half of which would be supplied by the parties who made the application. To this the directors assented, and of course 75,000*l.* would have to be raised for that purpose. The directors also propose to construct a branch to join the Shropshire Union Company, which would complete a direct communication with Wales, for which 200,000*l.* would be required: and also 190,000*l.* for the Manchester, Buxton, and Matlock line. These were the sums which the directors sought authority to raise. The chairman then proceeded to explain the objects of these undertakings, after which

Mr. W. Rawson and others addressed the shareholders, and resolutions in accordance with the objects of the meeting were adopted.

LYNN AND ELY RAILWAY COMPANY.

A meeting of the proprietors of this company took place at eleven o'clock, December 31st, at the London Tavern. Sir W. B. Folkes in the chair.

The Chairman observed, that this meeting had been called for a special purpose, or, rather, for two special purposes, one of which was to allow the directors to raise further capital for making an extension of this line from Wisbeach to Spalding, and Wisbeach to March; the other was to obtain the sanction of the shareholders to a recommendation from each of the three companies—viz., the Lynn and Ely, the Ely and Huntingdon, and the Lynn and Dereham, for an amalgamation of their lines.

“TERMS FOR THE AMALGAMATION OF THE LYNN AND ELY, ELY AND HUNTINGDON, AND LYNN AND DEREHAM RAILWAY COMPANIES, AGREED UPON BY THE DIRECTORS OF THOSE COMPANIES, SUBJECT TO THE APPROVAL OF THE RESPECTIVE PROPRIETORS.

“The three companies shall be amalgamated as from the 1st day of January, 1846.

“The extension capital about to be raised by the Lynn and Ely and Ely and Huntingdon Companies shall be apportioned among the shareholders in the three companies at the rate, or as near thereto as possible, of one new share for every original share.

“The capital of the three companies, and also the extension capital above referred to, shall be taken at par.

“Inasmuch as by the terms of the act of Parliament incorporating the Ely and Huntingdon Company, interest at the rate of 3*l.* 10*s.* per cent. per annum is payable on all sums called up on the shares in the capital of that company; but no such provision is made in the acts incorporating the Lynn and Ely and Lynn and Dereham Companies: interest at the rate of 3*l.* 10*s.*

per cent. per annum shall be paid on all sums called up on the shares in all the three companies, from the date of the payment of such respective calls until the three lines shall be opened for working.

"Provision shall be made in the acts authorising the extension lines above-mentioned, for payment of interest at 3*l*. 10*s*. per cent. per annum on all sums called up on the shares in the capital raised for such extensions.

"An act for carrying the amalgamation into effect shall be applied for as soon as the regulations of Parliament will admit, at the joint expense of the three companies; and in such act it shall (*inter alia*) be provided that the three companies shall constitute one company, by the name of 'The East Anglian Railways Company.'

"That such act shall contain all such other clauses and stipulations as the directors of the three companies shall in their discretion think proper."

The Chairman said that purchases of land had been made, also iron and sleepers had been bought, and carriages and engines were bespoken. The line would have been begun some time ago had it not been for the great difficulty in procuring surveyors and engineers; there was now, however, every prospect of its being forwarded with all speed. They had already taken the precaution of ordering the steam-engines before the line had received the assent of Parliament, otherwise they would have found it impossible to obtain them in time after the line had been passed, owing to the great press of business upon the makers.

Subsequent to this another meeting was held in the same room, at one o'clock, composed of the proprietors of the Ely and Huntingdon Railway Company, who met together with the same object in view as the Lynn and Ely.

The details were, save one, similar to those which occurred at the previous meeting. The same resolutions were as unanimously passed, and the proposition for the amalgamation of the three companies was sanctioned with general satisfaction.

A third meeting took place in the same room, at three o'clock p.m., which was attended by the proprietors of the Lynn and Dereham Company, who passed the same resolutions as were adopted at the two other meetings, and empowered their directors to take steps for their being fully carried out.

PARIS AND LYONS RAILWAY COMPANY (CALON'S).

A general meeting of the shareholders of the above company was held, pursuant to public notice, at the London Tavern, 31st of December.

The Chairman said, they had been then called together for the purpose of receiving the first and perhaps the final report of the directors. The shareholders of this company were aware that an adjudication had been made in France, in favour of a united company, of which the present one formed a part. They were also aware that a deputation, consisting of some of their directors, had gone to Paris, for the purpose of watching the interests of the proprietary in the progress of any amalgamation of companies which might be in contemplation. Previously to the departure of that deputation, the affairs of the company were rather depressed. In fact, the shares of the Paris and Lyons Railway did not rank as other companies did, and on the Stock Exchange did not obtain a very high value. But when the deputation proceeded to Paris, they took such measures as soon altered the posture of affairs; and their company quickly assumed a more advanced position, and took a more decided character in the bureaux of Messieurs. Lafitte and Rothchild (hear). The result of their exertions had been the amalgamation of this company with eleven other companies; and the following would show the proportion of constituted shares which would be allotted to each company respectively in consequence of this fusion of the different bodies.

There were in all 400,000 shares to be allotted, and these were appropriated as follows :—

To Rothschild	10,000
Union	42,364
Lafitte	42,364
Calon	42,364
Hottinguer	43,333
Receveurs	43,334
Messageries	43,333
Lapinsonnière	38,835
Griolel	27,600
Verdeau	24,209

making in all a total of shares to the number of 400,000

It became, therefore, necessary to apportion the 42,364 shares which were allotted to their company, some of the subscriptions to which were to be raised in France, and others in England, between the shareholders in the different places. Of these, 28,329 had been appropriated to subscribers in Paris, 11,859 to London, and 2185 to Rouen. In the amalgamated company now the shareholders of the present company would be entitled to one share for every ten which they originally held in the old. After this arrangement had been fully carried into effect there would still remain of the original shares of their company 662; and these, it was in contemplation, if the shareholders present approved of that proposition, to allot amongst their eleven directors, as a slight compensation to them for their trouble and expenses while attending to the interests of the company, both here and in Paris. They had been at some inconvenience in their endeavours to serve the shareholders, and this proposed allotment was only fair as a means of covering the expenses they had been under. But it was for the meeting to declare whether or not such a proposition was approved of.

PARIS AND LYONS RAILWAY.—GANNERON'S COMPANY.

A meeting of the English shareholders of this company took place at the London Tavern, 2nd of January, at one o'clock, for the purpose of hearing from the Directors a statement of their present position, consequent upon the recent fusion.

F. Mowatt, Esq., chairman, presided.

The Chairman explained the circumstances by which the progress of the Company had been surrounded. Their colleagues in France entertained the question of a fusion with other companies, and the English Directors thought it better not to hazard the interests of the shareholders by refusing to make arrangements for a fusion. The Chairman then proceeded to explain that the arrangements the English Directors had entered into on behalf and in the name of the shareholders, was that for 3,800 shares in the original company they would accept 400 shares in the definitive Company. After the division, made in accordance with this arrangement, there remains a balance of 782 shares. That balance was of course the property of the shareholders at large, and it was for them to dispose of them as they might think proper; but while he acknowledged this right on the part of the shareholders to dispose of that balance in their own way, yet he would venture to propose to the meeting, for reasons which he would not divulge unless called upon to do so, that they be placed at the disposal of the Directors. In consequence of the fusion that had been entered into, the holders of shares would be treated in the following manner :—For every hundred shares the holder would receive 250 francs and ten shares, on which 5*l.* each had been paid; that, in fact, every ten shares in the original company would represent one share in the definitive company. He stated that at the close

of the interview with their colleagues in France, they separated with a distinct understanding that 2*l.* only should be called for; that, in conformity with this understanding, the *Acte de Société* was drawn up, but that, in his hurry to leave Paris, that Act was not completed, inasmuch as there had not been sufficient time during his stay to have it formally signed by all the parties concerned. In the meantime, therefore, before the *Acte de Société* could be formally ratified, their colleagues in France had thought proper to make a call of seventy-five francs, or 3*l.*, and before the Directors in England could have time to explain to those in Paris the futility of such a measure, with a view of preventing its being carried into effect, the necessary amount of capital had been paid up. When for this Act the French Directors were remonstrated with, they replied by contending that it was necessary, in order to create that moral effect which was required to give them a proper standing in the eyes of the government and the country; and, therefore, the English Directors thought it better to submit to it without farther objection. Indeed, he was bound to say, in support of the views of his French colleagues, that that measure of calling for the 3*l.* instead of 2*l.* had tended to give them a better position in the eyes of the French government than they otherwise would have had (hear, hear). He added that there would be 4 per cent. paid on the capital from the day of adjudication to the opening of the line, which was expected to take place in four years.

LEEDS AND CARLISLE RAILWAY COMPANY.

A meeting of the proprietors of the above company was held 5th January at the London Tavern. Mr. W. Beresford, M.P., presided. He said the Directors had convened the proprietors together for the purpose of stating to them their present position, and of making them fully acquainted with every matter relative to the amalgamation which had taken place between them (the Leeds and Carlisle Company) and the Yorkshire and Glasgow Union Railway Company—an amalgamation which the Directors considered most advantageous to both the proprietaries. The following report was read:—

“Your committee of management have much pleasure in laying before you a general statement of their proceedings, and of the position of this company; under any circumstances your committee would have deemed it their duty to report to you at an early period, the steps that have been taken for prosecuting the object which you charged them with; but in the present case, that duty becomes a gratification, because your committee are enabled to make such a statement of the affairs of this company, as they feel convinced will meet your cordial approval.

“Notwithstanding the inauspicious moment at which this company was brought out, a very great number of shares were paid upon by parties of the highest respectability, connected by commerce, or by ownership, with the important districts which your line was designed to benefit. In the allotment, the committee were desirous of conciliating the local interest, and they considered applications from such quarters as having a priority of claim; whilst they deemed it desirable to allot generally to such as gave assurances that they would hold at least two-thirds of the shares allotted to them. Your committee also conceived that their Scotch applicants should be favourably regarded, especially those of Edinburgh and Glasgow, inasmuch as the success of your bill would be identical with the interest of those important cities. The total amount of deposits received is 102,949*l.* 17*s.* 6*d.* The committee of management have the pleasure of informing their shareholders that ninety-one members of the provisional committee of this company have paid the deposit on the total number of the shares allotted to them.

“The line adopted by your committee commenced at a junction with the Leeds and Thirsk line, at Horsforth Wood, four miles north of Leeds, and

passing Rawden, Yeadon, and Guiseley, to Ilkely, it continued up Wharfe Dale to Hawes, and thence through Appleby to its junction with the Lancaster and Carlisle line, at Clifton, nineteen miles south of Carlisle; thus forming the most direct route from London and Leeds to Carlisle, Glasgow, and Edinburgh. The length of this line is eighty-four miles, and presents practicable working gradients; although to obtain these some heavy works are requisite, especially at Stakefells. These, however, your committee hope to considerably reduce and amend.

"In all the proceedings of your committee it has been their policy to cultivate a friendly understanding with those companies with which your line is connected, and this spirit has been responded to generally; the Leeds and Thirsk Railway Company, with which your line is more directly connected, having offered every facility both for a junction and running on the line on fair and reasonable terms; whilst the Caledonian Railway Directors have expressed to your committee, that they view any direct communication from Leeds and the centre of Yorkshire, to Carlisle, as important to the interests of that company.

"In prosecuting your bill through Parliament you would have had to contend as your strongest opponent with the Yorkshire and Glasgow Railway Company, whose interests were, in many respects, identical with those of this company, and whose line, from Clifton to Hawes (about thirty miles), ran parallel to your own; thence it passed down the Valley of the Yure, through Askrigg, Leyburn, and Bedale, to Thirsk, on the Great North of England Railway, and (by a branch of seven miles) to Wath (near Ripon), forming a junction with the Leeds and Thirsk line. This line had the advantage over your own, in points of practicability and cheapness of construction, the whole being laid down without a tunnel, or any expensive work. This company, as well as the Leeds and Carlisle, is supported by strong local influence, and affords a complete line of communication between London, Leeds, Carlisle, and Scotland, and by far the shortest and most direct route from Scotland to the important port of Hull. After mature consideration, your committee considered it to be for the interest of this company to enter into an amalgamation with the Yorkshire and Glasgow Union Railway Company, as thereby heavy parliamentary expense will be avoided, and by this union an important national scheme carried out.

"Your committee were gratified to find that such disposition was cordially responded to by the Yorkshire and Glasgow Union Railway Company, which agreed to enter into an amalgamation on terms of perfect equality. Your committee have the satisfaction of informing you that the following terms have been entered into accordingly, viz. :—

"1. That an amalgamation be formed between the Leeds and Carlisle and the Yorkshire and Glasgow Union Railway Companies on terms of perfect equality.

"2. That the affairs of the amalgamated company be managed by a direction chosen in equal numbers from the committees of management of both companies.

"3. That as one of the two lines running parallel to each other from Clifton to Hawes—viz., that of the Yorkshire and Glasgow Union Railway, was found to present on comparison better gradients, and to be less expensive in construction, that line be adopted, and the other abandoned.

"4. That the amalgamation company do proceed in the ensuing session for a bill to construct the main line down the Valley of the Yure to Wath, near Ripon, on the Leeds and Thirsk Railway, (with a short branch to Thirsk, on the Great North of England Railway,) thereby opening a direct communication from Glasgow and Carlisle to Leeds, York, and Hull, and through them to the south. That the line from near Hawes to Leeds, by the Valley of the Wharfe, be sent in as a project only this session, in order to obtain possession of the ground, should the traffic demand at a future time two lines of communication between the north and south of England.

"5. That the stock of the amalgamated company be contributed in equal proportions, and that each company pay their own expenses up to the day of amalgamation.

"It has been already proved to the satisfaction of your committee that the local traffic on the Yorkshire and Glasgow line, independent of the through traffic, will be fully sufficient to remunerate the outlay of capital. The important item of line alone will yield a considerable revenue, as the line passes through the finest fields of limestone in Yorkshire, and the inexhaustible supply which these yield gives an ample security that the demand will be extensive and continuous; whilst the quantity of coal which will be necessary for burning the lime will give a remunerative back carriage, and vastly increase the present large consumption in the district.

"It has been a strong inducement to your committee to sanction the formation of that portion of your line first which traverses the lime district, because, from the absence of difficult or expensive work, this line would not occupy much time in construction, and because the local traffic already alluded to would yield an immediate return, and at the same time a line would be secured which will afford a much shorter route to Scotland than any now existing or projected, and the shortest possible route to Hull from the north and north-west.

The following is the financial statement of this company to Dec. 31, 1845.

Cr.		
By deposit		£102,949 17 6
Dr.		
To Engineering, on account	£6,000 0 0	
Advertising	1,008 11 6	
Law expenses	570 0 0	
Traffic tables	1,000 0 0	
Rent, salaries, tradesmen's bills, travelling, office expenses, &c.	989 16 4	
35,000 <i>l.</i> Exchequer Bills (average), at 25 <i>s.</i> pm.	35,907 16 3	
Bank security	35,000 0 0	
Balance in hands of company's bankers, in London and the country	22,473 13 5	
		£102,949 17 6

The chairman said that the amount that had been paid to Sir John Rennie, the engineer, was 6,000*l.* Upon the amalgamation, indeed, before it took place, Sir John Rennie sent in his bill, which amounted to no less than 12,800*l.* (hear). The board considered the charge to be so unwarranted that they declined paying the whole amount; and he had at that moment in his pocket a letter from Sir John Rennie, in which a request was made to be furnished with the name of the company's solicitor, in order that process might be served for the recovery of the entire sum—viz., 12,800*l.* The proprietors might depend upon this, that the Directors would not shrink from defending any action Sir John Rennie might bring against them, for they were quite satisfied they had a good and conclusive defence. The advertisements did not amount to much more than the sum put down for them. The law expenses, 507*l.*, had been advanced in the country for making up the reference book, and the amount included only the money out of pocket. The expenses of serving notices, now that the amalgamation had taken place, would be shared by the other parties. With respect to the traffic tables, they would, perhaps, have to pay a few hundred pounds more. They had secured a first-rate man, Mr. H. Brown, for the completion of the traffic case, and they had it from that gentleman that the through traffic upon the line would be very large. The rent, salaries, &c., had been paid up to the last moment;

and that last week five of the Directors, including himself, went down to Yorkshire and met the Directors of the Yorkshire and Glasgow Union Company. They, on that occasion, made a joint board, and it was very flattering to him to be able to state that the board had thought proper to elect him chairman of the amalgamated company. He then asked certain questions, and he ascertained that 10,000*l.* would cover the whole of the expenses incurred by them up to the time of amalgamation. They were supported by a large propriety in the amalgamated direction; by Mr. Wyvill, of Constable Burton, a gentleman of large property; by Mr. O. Powlett of Bolton Hall; by Mr. Anderson; and by many other respectable country gentlemen of small landed property. Those he had just spoken of were amongst the members of that managing committee. Upon the provisional committee of the Yorkshire and Glasgow Union Company was Lord Beaumont, through whose property the line would pass, and also the present Lord Wharnccliffe. The proposed railway would go over about seven miles of Lord Wharnccliffe's land. They had a most powerful local support, and he (the chairman) considered that the company was in a most prosperous state, and that with the joint influence of the commercial interests in London, and the landed interests in Yorkshire, they had a strength which must triumph over all opposition.

The resolution was then put and carried unanimously.

HUDDERSFIELD AND MANCHESTER RAILWAY—MEETING OF SHAREHOLDERS AT HUDDERSFIELD.

On January the 9th, a meeting of shareholders of this undertaking was held in the Guildhall, Huddersfield. The object of the meeting was to take into consideration the amalgamation with the Sheffield and Manchester Company, and to take what steps might be thought necessary in reference to it.

Joseph Brook, jun., Esq., was called to the chair.

The meeting was addressed by the Chairman, Mr. W. Moore, Mr. Shaw, Mr. Joseph Stocks (a proprietor of above one thousand shares), Mr. Bennett (of Liverpool), Mr. T. A. Heaps, Mr. Armitage (chairman of the Huddersfield and Sheffield), and Mr. Freeman. A feeling against amalgamation was very decidedly manifested. The position in which it would place this company was reviewed with great calmness by several of the speakers. A circular recently issued by the directors to the shareholders was made the subject of repeated allusion, and though by some of the gentlemen who referred to that document, it was admitted to contain some more weighty considerations in favour of the amalgamation with the Sheffield Company than had been previously laid before the shareholders, it was nevertheless at the same time contended that they were still insufficient to prove the desirableness of such a union. All who gave expression to their sentiments were unanimous as to the importance of an alliance with the Leeds and Dewsbury, which was generally viewed to be so desirable that the obstacles to such an arrangement which it was conceived would be presented by uniting the Huddersfield and Manchester with a company having the enormous responsibilities in which the Sheffield was involved, were made a prominent argument against an amalgamation with the latter company at the present period. If an amalgamation could be effected with the Leeds and Dewsbury, it was generally thought that they would be in a position to obtain, at a future period, far more advantageous terms from either the Sheffield and Manchester, or Leeds or Manchester Companies, than they could procure at the present time. In the course of the proceedings the conduct of some of the directors in pressing, as it was conceived, unduly, the amalgamation with the Sheffield and Manchester also became the subject of animadversion, and some of the speakers did not hesitate to assert the inefficiency and want of local knowledge of the requirements of Huddersfield on

the part of some of the directors ; and Mr. Armitage, who complained that he had been driven out of the directory by the unhandsome treatment of one or two of them, urged the necessity of the directory being weeded at the meeting of the company which was to take place in February.

On the motion being put to the meeting it was adopted without a dissentient.

A committee was afterwards formed to carry out the object of the resolutions, and for the purpose of communicating with shareholders at a distance, in order to ensure their co-operation.

HUDDERSFIELD AND EAST AND WEST COASTS RAILWAY—RETURN OF THE DEPOSITS.

A meeting of the shareholders in this company was held at the Guildhall, Huddersfield, on Friday, for the purpose of receiving the report of the provisional directors on the position of the company, and of taking the opinion of the shareholders on the future course to be pursued. There was a very large and influential attendance of the shareholders.

Joseph Starkey, Esq., the chairman of the provisional committee, presided.

At the commencement of the proceedings, Mr. Jacomb, solicitor, read a lengthened report of the provisional directors. This document entered into the origin and progress of the scheme and the various negotiations into which the company had entered. It made especial reference to the negotiations which had taken place with the Huddersfield and Manchester Company for an amalgamation, and to the failure of those negotiations in accomplishing a corporate arrangement between the two companies. After the preliminary announcement, it appeared that the shares applied for exceeded 300,000, which amounted to 40 times the number of shares at the disposal of the directors. The failure of the negotiations with the Huddersfield and Manchester Company had placed this company in a position of great difficulty, owing to the non-payment of the deposit on a large proportion of the shares allotted to the Huddersfield and Manchester proprietors, even some of the directors of that company not having taken up their shares. The deposits unpaid amounted altogether to 16,281*l*. It was to be regretted that the Huddersfield and Manchester proprietors had not taken up the shares allotted to them, because the directors of this company were of opinion that they might have been disposed of in a satisfactory way to other parties. This circumstance had rendered it impossible for the provisional committee to proceed to parliament for the whole of the scheme (including the eight branches) without a further capital of 3000*l*. or 4000*l*. It would therefore be necessary either that the additional amount should be subscribed or some of the branches abandoned. The directors entertained the same good opinion of the undertaking they had ever had of it, and as a proof of the general estimation in which it was held by the owners of the land through which it would pass, it was stated that out of 410 only 114 had expressed their dissent to its formation.

Mr. Leigh Brook stoutly resisted the original motion.

On a division the motion was carried by a very large majority.

After the show of hands had been taken, a scrutiny of the number of votes took place amid the greatest excitement and confusion. Of the numbers of shares represented by those presented there were upwards of 100 majority in favour of the original motion.

The remarks of several shareholders evinced a deep sense of the excellent manner in which the directors had conducted the affairs of the company.

METROPOLITAN RAILWAYS JUNCTION COMPANY.

The adjourned general meeting of the shareholders in this company was held Jan. 5th, at the office of the company, 11, Clement's Lane, Lombard

Street. Major Croft, chairman of the committee of management, presided. The object of the meeting was to hear the report of the committee appointed at the last meeting of the company to negotiate with the committee of the projected Northern and Southern Connecting Railway Company, relative to an amalgamation of the undertakings.

Mr. Cheese, the secretary, submitted a long and minute detail of the various proceedings of the sub-committee appointed to negotiate with the projectors of the Northern and Southern Connecting Company for an amalgamation. The ultimatum proposed to their company was, in effect, as follows. First, that the plans of the Northern and Southern Connecting Company should be adopted; secondly, that three shares, with a payment on each of 12s, should be received in exchange for one Northern and Southern Connecting; thirdly, that four directors from the Metropolitan Junction Company should be admitted into the amalgamated company; and fourthly, that Messrs. Miller and Carr, solicitors to the Northern and Southern Connecting Company, should be the only solicitors of the company.

The Chairman said the directors could return no answer to such a proposition. The shareholders would at once see the impossibility of consenting to any such proposal. He had just had a conversation with a member of the committee of that company, who said that it was not in such a position that he could recommend the Metropolitan Junction Company to accede to it.

A committee, consisting of Mr. George Jones; Mr. Vacher, of Exeter; Mr. Payne; Mr. Dowling, of Edinburgh; and Mr. Gilbertson, of Hertford, was then nominated.

These gentlemen, with the addition of Mr. Hoddie, of Hatton Garden, were appointed to examine into the accounts of the company, in terms of the suggestion of the chairman.

MEETING OF THE DUBLIN AND SANDYMOUNT RAILWAY COMPANY.

A meeting of subscribers to the Dublin and Sandymount Atmospheric Railway Company was held on Monday, Jan. 5th, at the Commercial Buildings, to consider the threatened opposition of the Dublin and Kingstown Railway Company to the projected line, and to adopt such measures in reference thereto as might be deemed advisable.

At half-past one o'clock, on the motion of Mr. Wisdom, seconded by Mr. W. G. Dubedat, Edward Bourne, Esq., one of the provisional committee, was called to the chair.

The Chairman observed, that as they were all in possession of the objects of the meeting, which had been specially convened by requisition pursuant to the provision of the deed of settlement, he would, with the permission of the subscribers, call on the solicitor to read the reports which embodied the conclusions to which the provisional committee had come respecting the matter they were assembled to discuss and consider.

The Solicitor to the company read a report, from which it appeared that the Dublin and Kingstown Company did not intend to oppose this project. The following is the closing portion of the report:—

"The committee having considered the several communications had from the secretary of the Kingstown Company, that no opposition to this company has been contemplated by the Dublin and Kingstown board; and considering that every necessary step has been taken, and the usual expense incurred to bring this project before parliament, are of opinion that the shareholders have every reason to entertain well-grounded expectations of a successful result awaiting their application for an act sanctioning the project in the approaching session of parliament; and that it is highly remunerative to the shareholders, and eminently beneficial to the important and populous district of Sandymount and its vicinity. The committee, in pursuance of the power conferred upon them by the deed of settlement, have

determined to direct the necessary deposit in the Court of Chancery, to be made preparatory to the introduction of their bill to the legislature.

(Signed on behalf of the committee)

"JOHN L. ARABIN, Lord Mayor, Chairman."

Mr. Lees asked, had all the members of the committee named by the solicitor approved of that report?

The solicitor replied that they had. The report was agreed to, and adopted after consideration at several committee meetings.

Mr. Denehey remarked that the next thing to be done was to move the adoption of the report, and he had great pleasure in proposing a resolution to that effect. From the commencement he was impressed with the necessity existing for the construction of a railway to Sandymount, it being one of the most populous outlets of the city. It only required a short time to convince any man of the increasing source of passenger traffic which existed in that locality. He was grateful to the respectable solicitor, Mr. McNevin, for the active and honourable manner in which he had conducted their proceedings. There were few gentlemen of his profession who could have done so well with it under all the circumstances, and considering what had occurred. He trusted that they were on the eve of having themselves placed before the public in a better position than they had heretofore occupied. For his own part, he would be anxious to forget and forgive the occurrences of former occasions, and he hoped they would all pull together in future, and that the undertaking would turn out as prosperous as they had anticipated when embarking in it—for he supposed that no man would invest his capital in the project, unless under the belief that it was *bonâ fide*, and likely to turn out very remunerative. This, he believed, the Sandymount concern would be found to do.

Mr. Lees seconded the adoption of the report.

The motion for the adoption of the report was put and carried unanimously.

THE SOUTH-WESTERN held a special general meeting, Tuesday, Jan. 20th, for the purpose of conferring the necessary powers upon their directors, previous to application to Parliament for legislative sanction to their various branch and extension projects. The report read upon the occasion gave the following list of these lines—to Hampton Court; to Epsom; to Chertsey and Egham; to Farnham and Alton; to Salisbury, from Basingstoke, by Whitchurch and Andover; from Romsey to Redbridge; and from Nine Elms to London Bridge. It also stated that arrangements had been entered into with the Brighton, whereby the company will become half-owners of the Portsmouth and Fareham extension of the Brighton and Chichester. It also introduced to the notice of the shareholders the grand scheme for a railway communication between Basingstoke and Land's End, which, in concert with the companies below, the South-Western proposes to execute:—The branch from Basingstoke to Salisbury (estimated cost 700,000*l.*) will be the first section of this scheme. It will be continued by the proposed London, Salisbury and Yeovil (estimated cost 900,000*l.*) to Yeovil; by the line and branches of the Exeter, Yeovil and Dorchester (estimated cost 1,300,000*l.*) to Exeter; and by the Cornwall and Devon Central (estimated cost 3,000,000*l.*) to Falmouth and Penzance. The capital for the entire line will be 5,000,000*l.*, of which one-fourth is to be transferred to the South-Western, who will thereupon obtain a corresponding share in the management of each of the undertakings. Should Parliament sanction the projected scheme, it is proposed that the above companies, with the exception of the Dorchester, should be amalgamated; that the present debenture debt of the South-Western (630,000*l.*) should thereupon become a charge upon the entire undertaking, and that the remaining profits of the whole concern should then be apportioned for dividend, seventeen twenty-sixths to the ex-

isting share capital of the South-Western, and nine twenty-sixths to the capital expended on the construction of the lines west of Basingstoke; the capital expended on the Yeovil and Exeter portion being guaranteed out of the nine twenty-sixths, a fixed dividend of $5\frac{1}{2}$ per cent., in the shape of rent, to be reserved on a lease in perpetuity of that line to the amalgamated undertaking.

WORCESTER, WARWICK, AND RUGBY RAILWAY COMPANY.

A general meeting of the shareholders in the above Company was held Jan. 12, at the London Tavern, for the purpose of receiving the Report of the Directors, and considering a proposal for amalgamation with competing lines.

Mr. Ward, M.P. was in the chair.

The Chairman said that, as the report he should have to lay before the Proprietors detailed the purpose for which they had assembled, and as he hoped that report would prove satisfactory, he thought it was not necessary to detain them by any preliminary observations. He should merely express regret that in consequence of the time consumed in negotiations, which had been very long and difficult from the various interests to be brought into communication with each other, the Directors had not been able to call a meeting of the proprietors so soon as they had a month since anticipated.

The Report was as follows:—

"The acting committee of the Worcester, Warwick, and Rugby Railway have great pleasure in informing their proprietors that, after a long negotiation, they have succeeded in effecting an amalgamation with the Rugby, Warwick, and Worcester, and the Warwick and Worcester Companies, upon terms which they consider as equitable and advantageous to all parties.

"The three companies are henceforward to form one. The capitals are to be consolidated, the boards united; and out of the three lines for which the parliamentary notices have been served, and the plans and sections deposited, the best is to be selected by some competent engineer, which, when brought into contact with the lines already centering from South Wales and other important districts, can hardly fail to command a traffic of the most remunerating character.

"In their address to the proprietors, on the 4th of December, the committee stated that unless some such arrangement as this could be effected, they should immediately call a meeting of the shareholders and return the deposits, minus the expenses already incurred. They wish now to be better than their word, and notwithstanding they have full powers under the Parliamentary deed to bind their proprietary, they have regarded it as their duty to consult them, both as a proof of their own confidence in the arrangement proposed, and their desire to meet the wishes of those individuals who may find it inconvenient to take advantage of it.

"With this view they mean to propose to the meeting two resolutions, the first of which confirms the amalgamation, while the second provides that those proprietors who disapprove of it may receive back 30s. per share upon rendering their scrip, which scrip will be re-issued at the same price to such shareholders as regard the scheme as entitled to their support, and calculated not merely to put an end to useless litigation, but to ensure a safe and lucrative investment to all who consent to transfer their interest to the amalgamated line."

[Cheers.] This was the whole of the report, and the advantage of amalgamation was so obvious that it was perhaps unnecessary to dwell upon it. With three or four competing lines the contest must have involved a great waste of capital in Parliament, while it was quite clear that only one line of railway could be sanctioned. It was right he should state that Mr. Gravatt's inaccuracies had been found of the most trivial character; the work had been well done, and the plans and sections had now been deposited so as to

entitle them to be one of the companies between whom the engineer to be selected should decide. With respect to the country through which the lines proposed to pass, there could be no doubt that the traffic would amply repay those who embarked their capital in the construction of a railway for its accommodation. He was satisfied that the line, whichever might be chosen, would be one of the best paying railways in the kingdom, and that it would now be made under the most advantageous circumstances (cheers). He hoped the report would prove that the Directors had discharged faithfully and diligently the duty confided to them (cheers). He would now read the resolutions they proposed to engraft upon the report, should it be adopted. They were as follows:—

“That the amalgamation concluded between this Company and the Rugby, Warwick, and Worcester, and the Warwick and Worcester Companies, be confirmed.

“That such of the proprietors as shall dissent therefrom shall signify the same by letter addressed to the secretary, within seven days from this day, and that they shall then be entitled to receive, on a day to be advertised by the committee, the sum of 30s. for each share now in their possession; and that the shares of such dissentients shall be re-issued at the same price to such of the assentients amongst the shareholders as shall, in like manner, and within the same period, signify their desire to avail themselves of this option. Such shares at 30s. to be divided rateably amongst such applicant assentients.”—(Cheers.)

Mr. Routh moved the adoption of the report.

A proprietor inquired whether the expenses already incurred amounted to 12s. per share?

The Chairman said the number of shares issued to the public was 35,000. Although the greatest possible care was taken in the selection of the letters of application, the shares paid upon amounted to only 18,615. The number of shares reserved for local interests, landowners, and for the branch to Redditch, to which the Worcester people attached importance, and were most anxious to have constructed, was 5000; and the same number was reserved for the acting committee and provisional committee. Out of the latter 5000 the members of the committees took 2987, so that 21,602 was the number that had been paid upon. The sum paid up was 45,364*l*. He said the whole of the lines projected to supply the country between Rugby and Worcester were disposed of by this amalgamation.

The resolutions were put and carried unanimously.

BRADFORD, MANCHESTER, AND LIVERPOOL DIRECT RAILWAY.

Jan. 12th, a meeting of the shareholders on this line, who have paid up their deposit money of 2*l*. 12s. 6*d*. or the decreased deposit of 10s. per share, was held at the offices of the company, in Charles Street, Bradford.

Mr. Edward Ward, Bradford, the chairman of the executive, opened the proceedings by stating that, as all present would be aware, the position of the project was not so good as the executive could have desired; for they had not money sufficient, because of the non-payment of the deposits, to go to parliament with, though all things requisite to taking that step were complete. He then read a long report, which contained the following:—

FINANCIAL STATEMENT.

1846.—Dr.

Jan. 12. To guarantee fund in bank, received from 155 subscribers (less seven who have paid their deposits less 10 <i>l</i> .)	£ 1,480	0	0
To deposits received on 5825 shares, and interest, less commission	15,308	0	0
To deposits of 10s. per share received on 510 shares	255	0	0
	£ 17,043	0	0

1845.—Cr.

Oct. 24 and Dec. 11.	By cash paid Mr. Murphy	£ 300 0 0
Nov. 30	„ Messrs. Sudlow, Sons, and Torr	46 10 0
Nov. 3 and Dec. 2	„ Mr. Parratt	230 0 0
Nov. 8	„ for Stamps	200 0 0
„	„ for Advertising	48 12 0
„	„ Mr. Mansell	200 0 0
„	„ the Solicitors	200 0 0
		<hr/>
		1,225 2 0

Receipts as above	1703 12 3
Payments	1225 2 0
Balance in the bank	15,818 10 3

Mr. Mansell, the traffic taker, has made a claim of 408*l.* 5*s.*, which your committee consider exorbitant, and request your guidance in the matter. The joint bill of the solicitors amounts to 1146*l.* 2*s.* 9*d.*; and your committee are glad to report that although the account is reasonable, they have, in consequence of the present non-success of the project, without hesitation consented to throw off 300*l.*, thus reducing it to 846*l.* 2*s.* 9*d.*

The whole of the liabilities of the company are 3363*l.*, and the following are the particulars—

Dr.

To deposits paid into the bank on 5825 shares (less 70 <i>l.</i> Guarantee Fund), and interest	£ 15,308 12 8
To deposits of 10 <i>s.</i> per share on 510 shares	255 0 0
To guarantee forfeited by 42 subscribers refusing to pay the deposits	420 0 0
To guarantee subscription of seven gentlemen at Halifax, who paid their deposits less 10 <i>l.</i> each	70 0 0
	<hr/>
	£ 16,053 12 3

Cr.

Messrs. Ross and Murphy's joint bill	£ 1100 0 0
Mr. Parratt's bill	369 0 0
Mr. Mansell's ditto	408 0 0
Solicitors' joint bill	846 2 9
Advertising	100 18 1
Stationer's account	89 0 9
Parliamentary agents	89 0 0
Stamps	141 0 0
Tavern and other miscellaneous bills	151 12 0
Sundries not accounted	68 6 5
	<hr/>
	3,363 0 0
Balance to return to scripholders	12,690 12 8
Return on 5825 shares at 2 <i>l.</i> 2 <i>s.</i> 6 <i>d.</i> per share	12,378 2 6
	<hr/>
Left in the bank, after returning 2 <i>l.</i> 2 <i>s.</i> 6 <i>d.</i> per share	£ 312 9 8

The report went on to state that the project was a good one, but it would be wise to postpone it. The committee proposed "to make a return at present of 2*l.* 2*s.* 6*d.* per share, and to return the residue, as well as what may be received hereafter, for disbursing such claims as they may think reasonable, and resisting those that are exorbitant. Whatever balance may remain will either be retained in the bank till another session, or it will be divided rateably among the scripholders and those who pay their deposits of 10*s.* per share.

A good deal of discussion took place, and the names of many members of the provisional committee who had not paid their deposits were given and

commented on. Finally, the following resolutions were proposed and carried :—

"That the report be adopted; and that the shareholders who have paid up their deposits in full shall receive back the sum of 2*l.* 2*s.* 6*d.*"

"That a month shall be allowed to the defaulters to pay up their quota of 10*s.* per share, and that at the end of that period the defaulting parties shall be publicly exposed."

This day fortnight was fixed as the day for the return of the portion of the deposits indicated in the first resolution.

A vote of confidence in the committee was passed; also a vote of thanks to the chairman. The meeting then separated.

LANCASTER AND CARLISLE RAILWAY.

At one o'clock, Jan. 13th, the proprietors in the Lancaster and Carlisle Railway held their half-yearly general meeting, in the Clarendon Rooms, for the general purposes of the undertaking. Mr. E. W. Hassell, chairman of the directors, presided.

The following reports were read :—

DIRECTORS' REPORT.

"Again the directors meet the proprietors with unmingled pleasure, having no untoward circumstance to report.

"As regards the progress of the works since the last general meeting, it has been satisfactory until within the last few weeks, during which the contractors allege that the state of the weather has prevented the rapid advance which was observable up to that time.

"The contractors still assure the company's engineer that, unless there be some unusual prolongation of a wet season, the line may be opened for public use by the first of next July, which has all along been looked forward to as the day of opening, though, as the proprietors are aware, it is now to be a double line, instead of single, as originally intended. There will also, by that time, be provided suitable accommodations at the different stations along the line, except at Carlisle, where a large general station will be constructed for the joint use of several companies, whose lines meet at that city, as soon as Parliament has given its sanction to a bill about to be submitted to them for the purpose of authorising such station.

"Considering the length of the Lancaster and Carlisle line, and the nature of the country traversed by it, in connection with the fact that the original Act was passed only in June, 1844, and the amended Act for the Lancaster and the Kendal deviations only last July, the directors think it may be regarded as matter for reasonable congratulation if the public and the proprietors reap the advantage of the railway in actual operation at so early a date as next July.

"The proprietors will probably recollect that it was reported to them, at a former meeting, that a contract had been entered into with the Grand Junction Company for the working of the line for a short period of years, upon terms to be fixed by Mr. Locke, the engineer of both companies. He has now made his award, which is satisfactory to the directors; and they are happy to feel that, as respects this very important portion of their duties, they are now relieved from all further anxiety or risk. They have ascertained that the Grand Junction Company have made considerable progress in the construction of the needful engines, carriages, &c.

"The issuing of the new shares created at the late special general meeting has enabled the directors to meet the heavy periodical demands which, at only very short intervals, will now be made upon them. In connection with this subject of finance, the directors avail themselves of the present opportunity of mentioning to the proprietors, for their guidance, that the remaining calls on the original shares will be made as speedily as the Act of Parliament authorises.

"The proprietors will not expect that in the late extraordinary rage for speculation, their property should have wholly escaped attack, or the threat of attack; the directors, however, can assure them that they are under no apprehensions as to the results to this company of any of the pending schemes. As to some of them, friendly arrangements have been already made—and, as to others, similar arrangements are, the directors trust, yet possible—whilst those few as to which this hope cannot reasonably be indulged, are of such a nature that (the utmost energies of the directors, of course, being put forth in defence of the company's just interests) parliamentary sanction is not likely to be given to them. The policy of the directors has been, and will continue to be, the attainment and maintenance of friendly relations with all companies, whether formed or proposed, wherever and whenever that is practicable on any fair terms.

"A statement of the accounts of the company, fully showing their financial position, will be laid before the proprietors. To that document, and to the engineer's report annexed, the Directors invite the attention of the proprietors, whose adoption of the accounts, and of a list of the present shareholders, will form the subjects of the only two resolutions which the Directors find it necessary to submit on the present occasion.

STATEMENT OF CAPITAL ACCOUNT FOR THE HALF-YEAR ENDING DEC. 31, 1845.

Disbursements.

	To June 30th, 1845.	Half Year ending Dec. 31st, 1845.	Total Expendi- ture to this date.
	£ s. d.	£ s. d.	£ s. d.
To Preliminary and Par- liamentary Expenses	14,298 14 11	436 12 0	14,735 6 11
Engineering	6,781 2 6	3,612 0 7	10,393 3 1
Land	43,465 16 5	29,191 6 10	72,657 3 3
Salaries	902 14 8	282 6 0	1,185 0 8
Law	1,682 10 8	1,530 11 3	3,213 1 11
Miscellaneous . . .	1,472 11 9	840 13 4	2,313 5 1
Police	435 3 6	396 3 0	831 6 6
Works	235,997 6 6	202,564 9 1	438,561 15 7
Rails and Chairs . .	46,081 13 11	72,049 3 4	118,130 17 3
Rates and Taxes . .	11 17 0	31 11 3	43 8 3
Direction and Audit Interest and Commis- sion	945 0 0	472 10 0	1,417 10 0
		155 7 11	155 7 11
	352,074 11 10	311,562 14 7	663,637 6 5
Balance			147,492 17 9
			£811,130 4 2

Receipts.

	To 30th June, 1845.	Half Year ending 31st Dec., 1845.	Total Receipts to this date.
	£ s. d.	£ s. d.	£ s. d.
By Calls	358,640 0 0	279,506 13 4	638,146 13 4
Loans		171,826 7 6	171,826 7 6
Interest	1,157 3 4		1,157 3 4
	359,797 3 4	451,333 0 10	811,130 4 2

"ENGINEER'S REPORT."

"From my monthly reports to the committee of works, you are aware that throughout the greater part of the half-year the state of the line was very satisfactory.

"The late continued wet weather has, however, somewhat retarded the heavy embankments.

"In regard, therefore, to the wish of the board to fix a day for opening the line, I think it would be premature to do so. My object will be to place the line in a perfect state at the earliest possible moment; but I am not disposed to urge on the opening at the least risk to the public after it shall be opened. After my inspection of the works in December, I received the positive assurances of Messrs. Brassey and Stephenson, that the line shall be completed by the first of July, and all their arrangements are made with that view.

"Of the 6,000,000 cubic yards of earthwork, nearly 5,000,000 are completed, and the remaining quantity is divided into such numerous portions that at no one point is there any difficulty with average weather. With regard to the masonry, it is equally forward. Of the ordinary bridges five-sixths are nearly completed, and the following is the state of the larger bridges and viaducts.

"The Lune Viaduct—three arches of 120 feet span—although only commenced after the passing of the amended act in July last, is well advanced; the abutments and land-arches (eight of 33 feet span) are up to the springing, and the river-piers are in hand, notwithstanding the floods.

"The Docker Garths Viaduct—six arches of 50 feet span, and 75 feet high—is complete up to the springing, and the arches are commenced.

"The Borrow Beck Viaduct—three arches of 45 feet span, and 60 feet high—is completed except the parapets.

"The Lowther Viaduct—six arches of 60 feet span and 100 feet high, is finished.

"The Bridge over the Eamont—four arches of fifty feet span and 70 feet high—is finished, except the spandrils and parapets.

"Nearly thirty miles of permanent way are laid.

"The number of men now employed is 5997.

"The number of horses now employed is 681, and two locomotives are at work on the line.

"Nearly the whole of the rails and chairs for the permanent way are now delivered on the line.

"Designs have been furnished for the whole of the stations, and several are in progress.

"I have this day again inspected the engines and carriages constructing for the service of this company in the establishment of the Grand Junction Railway at Crewe. This 'materiel' will, I have no doubt, be ready in time, and as we have the advantage of the experience of an old established company, it will be of a very perfect description.

"I am, Sir, your obedient servant,

(Signed)

"J. E. ERRINGTON.

"Liverpool, Jan. 13, 1846."

The Chairman here observed that the material part of the report upon which the proprietors might build their opinion as to the proceedings of the directors, was the question whether the line would be opened in the month of July next. The two circumstances that out of six millions of cubic yards of earthwork to be completed, five millions had been dealt with, and that the masonry was in a forward state, were some proof of their energy. From his own knowledge of the state of the works, he could undertake to say that, unless there was a very wet spring, there was every reason to believe the line would be opened by the beginning, or by the middle of July; and, if that anticipation proved correct, he might safely say there was no railway in the kingdom of equal length—namely, 70 miles—which had been com-

pleted and opened in so short a time. He remembered no case of the sort, especially where the works were so extensive, and the country so difficult. At the next half-yearly meeting, therefore, he hoped, besides a report, to present to the proprietors the railway itself.

Mr. Benson then moved that the report of the directors be received and adopted.

Mr. Lewin Mozeley seconded it.

The Chairman then put the resolution, and it was unanimously carried.

SCOTTISH GRAND JUNCTION RAILWAY.

A meeting of the provisional committee of this railway company was held, January 8th, in Carrick's Royal Hotel, Glasgow.

The Marquis of Breadalbane, chairman of the committee, in the chair.

A report was read by the Interim Secretary, of the proceedings of the managing committee since the last meeting of the provisional committee, and, on the motion of J. A. Campbell, Esq., of Inveraw, seconded by William Barr, Esq., of Drums, was approved of. It appeared from the report that the requisite plans had been duly lodged, and all the requisite notices duly given, for enabling the provisional committee to proceed with their scheme in the ensuing session of parliament.

Mr. Campbell, of Monzie, rose to submit a resolution to the consideration of the provisional committee. The resolution is in these terms:—"That under existing circumstances, it is expedient to proceed in parliament in the ensuing session with merely that portion of the scheme proposed in the original prospectus, which embraces the line reaching from Oban to the Head of Lochlomond, and that this portion of the scheme be proceeded with accordingly." Mr. Campbell stated that he deemed it unnecessary to take up the time of the meeting by entering at any length into some of the circumstances which had led the managing committee to come to the resolution, that for the present it would be expedient to proceed merely with that portion of the scheme referred to in the resolution which he had read, because these circumstances were as well known to every gentleman in the room as to himself. They were, he believed, of a temporary nature, and were already passing away. While, therefore, it was proposed not to proceed with the whole scheme at present, he would explain some of the reasons which had led the managing committee to come to the conclusion in favour of that portion of the scheme mentioned in the resolution, and on the strength of which he trusted the provisional committee would approve of the resolution which he had read. This portion of the scheme through Oban, one of the termini, communicates with a great part of the western portion of Argyleshire and the islands there, and also with the western coast of Inverness-shire, and the islands of that county, as far as Lewis. And in connection with the advantages that might be expected to be derived from those quarters, he had to mention that the managing committee have already received communications spontaneously made on the part of two bodies, each contemplating the formation of a railway, which shall run along the great Glen of Scotland, and into the line of the Scottish Grand Junction Railway. Among those who are desirous of promoting a railway in that direction there are Lord Lovat, Lord Ward, Sir Duncan Cameron, of Fassfern, Ardour, Ballachulish, Glennevis, Glenaladale, Letter Finlay, and Foyers. It is expected that Lochiel will also support the scheme, but from his absence from the country his sentiments have not yet been ascertained; and there are several other influential persons who are known to be favourable to a line in that direction, but who, from being engaged with other schemes, have not as yet come prominently forward as to this one. In short, there is good reason to expect that a line in that direction will receive the support of all the proprietors on the line of the Caledonian Canal. He might next observe that the proposed portion of the Grand Junction line

will carry all the traffic coming upon it from the west and north down to Glendochart and the head of Lochlomond, and will thus admit of communication both with Glasgow and the west, and with Perth, Dundee, and the east; and this, be it observed, by the only line by which a continuous line of railway ever can be formed from the north-western parts of Scotland. By bringing the line to Glendochart and the head of Lochlomond, it will be in the power of the Scottish Grand Junction Company to avail themselves of whatever line or lines that shall hereafter be formed leading from these points to Glasgow, it being a main object with this company to avail themselves of the best and most direct line to Glasgow. It was known to many gentlemen present that there are at present no fewer than three different lines proposed for communicating with the country traversed by the Scottish Grand Junction line with Glasgow; and under the proposed line to the head of Lochlomond, there is in the meantime, by means of Lochlomond, a direct communication with Glasgow. Indeed, he believed that with the great number of tourists who frequent the north-west of Scotland, this mode of communication may be preferred to any other by railway that may be established. The proposed portion of the line referred to in the resolution embraced a portion of the scheme proposed both by the Scottish Grand Junction Railway and by the Scottish Western Company, and had by the promoters of both been considered as attendant with many and great advantages. He might further state that this portion of the Grand Junction line is approved of by all the proprietors along its course, with one exception, if indeed that one could be considered an exception. He alluded to a gentleman who is at present abroad on public duty in the service of her Majesty. In that gentleman's absence his agent had very properly declined giving assent on the part of his constituent, but it is not doubted by any one who knows that gentleman that he has but to become acquainted with the important nature of the scheme to secure for it his cordial support. Another advantage arises from the absence of any engineering difficulties on the line. A great part of the line is nearly level. The Managing Committee had received an estimate of the cost of forming the line from a gentleman who is now present, ready to give any explanations if required. He would state that expense above the estimate, as in such matters he considered it to be the safest course. The estimated expense is considerably under 7,000*l.* a mile, but he would state it at that rate, according to which the whole cost for 46 miles is 322,000*l.* The estimate has reference merely to a single line of railway, but with bridges for a double line, if the formation of such a line should afterwards be deemed advisable. Investigations had also been made into the traffic of the district. These had not yet been all completed, but so far as they had gone they were most satisfactory and gratifying. Without making any addition on account of the expected facilities to be afforded by the railway, the portion of the existing traffic which, on the railway being formed, may be expected to come upon it, will, after making the usual deductions for the expense of working the line, yield a return that is expected of between 7 and 9 per cent. The gentleman who has been engaged making the traffic investigation is now present, ready to give any explanation which may be required, and he might mention that several gentlemen now present, resident in that part of the country, are of opinion that the existing traffic has been rather under-stated than over-stated. That traffic is altogether exclusive of any to be derived from Lochlomond. The passengers in the steam-boats on that loch, last year, amounted to upwards of 30,000. On these grounds he hoped that the provisional committee would be of opinion that the managing committee had acted with prudence in proposing that for the present all that should be attempted in the ensuing session of parliament was to obtain that portion of the scheme mentioned in the resolution, which he now respectfully submitted for the adoption of the committee.

Mr. Popham, of Ardochattan, seconded the resolution.
The resolution was unanimously adopted.

GREAT WELSH CENTRAL RAILWAY.

A meeting of shareholders connected with this undertaking was held, January 8th, at the King's Arms Tavern, in the Poultry, to adopt such measures as should be deemed expedient on behalf of the shareholders, in consequence of the abandonment of the scheme, and the announcement by the Committee of Management that the affairs were in course of being wound up.

Mr. Daniel Whittle Harvey, on the motion of Mr. Stafford, was unanimously voted to the chair.

The Chairman called on Mr. Stafford to explain the object of the meeting.

Mr. Stafford then read the advertisement. He stated that he had moved in the matter in consequence of the solicitations of gentlemen deeply interested in the undertaking, who objected to the course pursued by the Committee of Management in winding up the affairs of the concern. From the statement made by the secretary of the Company, it appeared that the number of shares applied for amounted to 400,000; the actual number being limited to 125,000. The letters of allotment were issued on the 17th of October, and four days allowed for the payment of the deposits. Deposits on 20,000 shares were all that were paid in. Subsequently a letter was sent to each person who had obtained allotments, requesting payment of 4s. per share to cover the expenses. When the shareholders, therefore, who had paid their deposits, were told that 17s. 6d. per share would be retained for expenses, they very naturally felt that it was an unfair tax on them; that it was monstrously unjust to make them suffer for those who had refused to liquidate their liabilities. It seemed that it was expected that the plans which the shareholders had paid for, were to be carried over to a new concern. The parties whom he represented cared not for the loss; but seeing in the prospectus the names of persons of standing as a guarantee of the respectability of the concern, they felt that such a meeting was necessary in order to adopt such remedy as the law laid open to them. It would be a difficult thing, single-handed, to encounter persons who held 43,000l. of the shareholders' money. The object they had now in meeting was to consider the best mode of uniting, to secure themselves from so unjust a demand. He had accordingly prepared a series of resolutions on the subject, which he would now submit to the meeting:—

"1. That this meeting, having regard to the statement of the Great Welsh Central Railway Company, published by their secretary, that application had been made by responsible persons for the allotment of 400,000 shares, deem the proceedings of the committee, upon a deposit being made on 20,000 only of the shares allotted by the committee, unjust to the parties who paid the deposits upon those allotted them, and the determination now to dissolve the Company at the sole expense of such depositors or shareholders is illegal, and should be resisted.

"2. That this meeting, having regard to the circular issued by the Company to the persons who have failed to pay the deposits required, to take up the shares allotted to them, whereby the proportionate expense is stated to be 4s. per share, consider the deduction of 17s. 6d. per share, proposed and actually made from the deposits of shareholders who have been willing to submit thereto, a gross imposition; and that the shareholders who have not already submitted thereto be recommended not to do so.

"3. That the information afforded to the Provisional Committee of the said Company as to the parties who have failed to take up the shares allotted to them, and as to the payment of deposits made by the members of the Provisional Committee respectively on the shares reserved to them, and as to the items of expense alleged to have been incurred by the Company, is most unsatisfactory; and, without full information of such particulars, the shareholders cannot, in justice to themselves, accept the terms proposed for winding up the affairs of the Company.

"4. That a committee of shareholders be appointed to make application for, and if possible to obtain, a full knowledge of the proceedings of the

said Company, to advise with counsel on the proceedings which, either at law or equity, might be effectual to them, on the part of the shareholders, to obtain a full deposit, or with such deductions only as, under the circumstances, might be deemed legal."

The next resolution he should propose was the appointment of a committee to carry out the foregoing, and he suggested that a small sum per share should be subscribed to cover the necessary expenses.

Mr. Parker, the solicitor to the Company, was ready to offer any explanation which might be desired.

The Chairman held it was the duty of every one to assist at the unravelling of these mysteries, in order that everything should be made as public as possible, to the great end of an alteration and improvement in the laws relating to railway property. It was now for their consideration what was to be done in the present position of this Company. He held in his hand a statement of the liabilities of the Company as it stood at present. Though in the original prospectus the capital was set forth at 2,500,000*l.*, in 125,000 shares of 20*l.* each, with a deposit of 2*l.* 2*s.*, and it was stated by the Committee that 400,000 shares had been applied for, it nevertheless appeared that the actual number of shares paid on was 20,000, which had realized 42,860*l.* The question naturally occurred, whence arose this failure? A misapprehension was common enough in the world that the promoters of a railway scheme were to subscribe the money and give their time to its management, but that the persons to whom allotments are made are only to take up their shares if at a premium. His opinion was, that if a person got an allotment of shares, and was required to pay the deposits, it was no answer to say, "I shall not pay one farthing, because I cannot sell at a premium." (Hear, hear.) To begin, however, with the Provisional Committee of the Company: it appeared that, of the members of the committee, 22 had engaged to take 200 shares each, several undertook to take a lesser number, while some altogether declined to take shares. This, it need hardly be remarked, was not an uncommon state of things. Though the allottees in all honest concerns (for that must be the condition understood) were bound to pay the deposits, they had undoubtedly a right to say that those whose names and position induced them to become subscribers, should, in the first instance, fulfil their engagements. The allottee would very naturally say to the Committee, "Before you come on me, have the honesty to pay your own." (Cheers.) Of the 22 who agreed to take the 200 shares, only five had paid up their deposits; others had taken an incredibly small number, while several had paid an arbitrary sum of 30*l.* Now, this was a very easy and convenient mode of getting rid of their liability, for if they paid up on the 200 shares, instead of 30*l.* or 40*l.*, they would have to pay from 70*l.* to 80*l.* As well might the allottees come forward and say—"Here are my five shillings." It appeared that the Glasgow deputation wished to enter into the new scheme. He wished them every success, but certainly not at the expense of their brother shareholders. He was not now going to recommend that legal steps should be adopted against the defaulters. He would respectfully suggest that Mr. Stafford should withdraw his resolution for the present, and that a committee be appointed to examine into the state and finances of the Company, and report to a meeting of the shareholders, to be held at the King's Arms Tavern, on Thursday, the 22nd inst., at twelve o'clock.

A committee, consisting of the Chairman, Messrs. Watts, Smith, Cocks, and Roberts, was appointed.

Mr. Parker here explained that the name of no gentleman was placed on the Provisional Committee of the Company until he came to his (Mr. Parker's) office, and signed an agreement to that effect, which document was duly filed in the Register Office.

The following statement was laid on the table, though not formally read to the meeting :—

Dr.	
Deposits on 20,410 shares	£42,861
From allottees	261
	<hr/>
	£43,122
Cr.	
Engineering expenses, reference books and other preliminary expenses . .	£11,047 1 2
Solicitor's expenses	2,291 13 9
Advertisements	3,048 10 6
Incidental expenses	1,355 9 11
Deposits proposed to be returned . .	25,002 5 0
By balance in hand	376 19 9
	<hr/>
	£43,122

MISCELLANEOUS.

LONDON SEWAGE COMPANY.

In our article on Metropolitan Improvements we have had occasion to advert to the important advantages to be derived from the proposed company.

The London Sewage Company is formed for the purpose of intercepting all the sewers of London, both north and south of the Thames, and thus not only preventing the pollution of the water by the filth which they carry down, but also saving the whole of the valuable manure with which all sewage of large towns abound. We have before us the official report of Mr. Wicksteed, the eminent hydraulic engineer, who, after an elaborate view of the subject, and the most careful calculations, comes to the conclusion, that the entire works may be constructed for 1,300,000*l.*, and allowing 200,000*l.* for law and parliamentary expenses, shows the capital proposed, 1,500,000*l.*, amply sufficient; the total annual expenditure he estimates at 300,000*l.*, and reserve fund, at 5 per cent. on capital, 75,000*l.* The revenue from 206,590 tons of dried and packed manure, at 3*l.* per ton, 619,770*l.*; showing an annual profit of 244,770*l.*, or above 15 per cent. on the capital. Mr. Wicksteed proposes on the north side of the Thames, a circular sewer to be constructed, 8 ft. in diameter, commencing at the Ranelagh sewer at the end of Grosvenor Road, by Lower Grosvenor Place, Tothill Street, Whitehall, Strand, to the end of Fleet Street; from thence a sewer, of 12 ft. in diameter, will continue across Farringdon Street, Ludgate Hill, Cannon Street, Tower Hill, in as direct a manner as possible, to the West Ham marshes, where the company's works are proposed to be erected in an angular piece of ground, formed by Barking Creek and the north bank of the Thames. The bottom of the proposed sewer in its western end will be 29 ft. below the bottom of the Ranelagh sewer, and 31 ft. below Trinity high water mark at Vauxhall Bridge, and, therefore, 15 ft. below low water; it will have a fall of 12 in. per mile, or 11½ ft. in the whole length (11½ miles). It will be kept at a certain distance from the river, in order to avoid tunnelling in uncertain ground, and water, as much as possible; and, by this plan, it will be easy to cause the sewage from the houses between the intercepting sewer and the river to flow back into it, instead of into the Thames. On the south side, it is proposed to construct an 8 ft. sewer at the Earl Sluice Sewer, which is capable of taking the whole contents of the south side; and passing through Lower Deptford, under the Creek, to the Greenwich marshes, where the south works of the company will be erected. The bottom of this sewer would be 12 ft. below the bottom of the Earl Sewer, and 29 ft. 7 in. below Trinity high-water mark, and at a 20 ft. tide, 9 ft. 7 in. below low

water: the fall the same as in the north sewer. On the contents of the sewers entering the first reservoir, the heavy materials and floating bodies will be taken out at once—time will then be left for deposit, and the refuse water pumped up, by powerful engines, into the Thames. A series of reservoirs will be provided—so that the action will be continuous; the solid manure will be dried by artificial means, then compressed, and packed ready for transportation to all parts of the world. Lime in proper proportions will be used, which will not only prevent effluvia, but improve the quality of the manure. From the best calculations made, on the present quantity of water flowing down the sewers, the quantity of solid matter obtainable by this company from the north side of the Thames will be 420 tons per day, and from the south side 146 tons, making the 206,590 tons per annum, as before mentioned. This comprehensive undertaking is perfectly feasible, and would secure to the inhabitants of London a healthy atmosphere, render the River Thames pellucid, and an ornament, instead of an offence, to more senses than one—bring a large quantity of land into cultivation, as well as improve that already under tillage, by securing a sufficiency of excellent and cheap manure—and, at the same time, return a good profit to the shareholders.

LARNE, BELFAST, AND BALLYMENA RAILWAY.—The Directors of this Company have effected an arrangement with the Belfast and Ballymena Company, by which an expensive Parliamentary contest with that Company will be avoided, and its cordial co-operation secured for effectually carrying out the best portion of this Company's project—namely, the direct line from Carrickfergus to Larne.

There was another company in the field—the Larne and Carrickfergus,—but the promoters have withdrawn their project, so that this Company which proposed to go, not only to Larne, but also to Ballymena, is now the only one before the public.

The portion of the line between Larne and Ballymena might be taken as competing with the Belfast and Ballymena, and, therefore, it has been abandoned, so that there is no competition now; both companies will form a junction at Carrickfergus, and arrangements have been made for the erection of a joint station.

The company are in a position to proceed with their application for an Act early in the session. All Standing Orders have been complied with, and the ten per cent. deposit is ready for lodgment.

This line is an important one. Larne Lough is accessible at all times of the tide, and the Admiralty have sent an experienced officer to examine into the relative merits of the various harbours as ports of intercommunication on the Scottish and Irish coasts; and it is not at all unlikely that the harbour of Larne will be reported favourably of, as the nearest and safest port for communication with Ardrossan, Glasgow, &c.

As far as regards the interests of the shareholders, there is little doubt the traffic on the line will afford a very remunerative dividend.

THE SWINDON STATION AFFAIR.—On Friday, the 23rd of January, Vice-Chancellor Wigram delivered judgment in the long-pending case between Rigby and the Great Western Company. The facts of the case are simply these:—the Great Western Company had entered into an agreement with the plaintiff to delay every train for ten minutes at the Swindon refreshment rooms, excepting "trains sent by express." The question was, whether the "express trains," which commenced running in May last, came within the meaning of this exception. The plaintiff applied for an injunction to prevent the defendants from permitting any trains to travel on the line without stopping the specified time at the said "Refreshment Rooms." His Honour, after going over the points of the case, gave judgment for the plaintiff;—so the public will be delayed on every journey to Bristol for the space of ten minutes, for the purpose of inspecting Mr. Rigby's pork pies, and sloppy coffee. This is a nuisance which must not be tolerated.

LONDONDERRY AND ENNISKILLEN COMPANY.—The Directors have given notice, that if the holders of 430 shares, being all that remain unregistered, do not send in the original scrip for registration before the 31st inst., the shares will be registered in the name of the person to whom they were originally allotted. The Directors have also made a second call of 2*l.* 10*s.* per share, payable on the 28th of February.

LONDONDERRY AND COLERAINE COMPANY.—A second call of 2*l.* 10*s.* per share has been made payable on the 28th February, and the Directors have also given notice that only seventy shares remain unregistered, and if not forwarded for registration before the 31st inst., they will be registered in the name of the person to whom they were originally allotted. This will be tantamount to a forfeiture of the shares.

RAILWAY TRAFFIC RETURNS, FROM OFFICIAL SOURCES.

Capital and Loan.	Amount expended per last Report.	Last dividend.		NAME OF RAILWAY.	Receipts for December ^a		Receipts from January	
		Per share.	Per cent. per annum.		1845.	1846.	1846.	1845.
£	£	£ s. d.	£ s. d.		£	£	£	£
100,000	140,782	0 12 6	3 10 0	Arbroath and Forfar	537	360	.....	575
1,013,741	1,547,357	2 0 0	4 0 0	Birmingham and Gloucester .....	.....	.....	Now inc. in Midl.	6,332
—	657,223	{ 9 <i>os.</i> 12 <i>s.</i> }	4 0 0	Bristol and Gloucester	3,005	.....	.....	3,001
500,000	550,640	{ 13 <i>s.</i> 6 <i>d.</i> }	2 12 0	Chester and Birkenhead	1,293	1,198	1,784	1,298
—	579,253	1 4 0	4 0 0	Dublin and Drogheda	1,539	1,159	1,738	1,539
270,000	349,735	—	9 0 0	Dublin and Kingstown	2,008	2,404	2,113	2,008
320,000	153,598	0 12 6	6 0 0	Dundee and Arbroath	747	856	837	750
320,000	302,118	0 10 0	2 0 0	Durham and Sunderland	2,580	1,844	1,844	2,582
4,164,881	4,090,326	{ E. 3 <i>l.</i> N. 2 <i>l.</i> }	E. 8 <i>os.</i> N. 5 <i>l.</i>	Eastern Counties and Northern and Eastern	11,257	19,867	19,867	11,257
1,300,000	1,086,226	5 0 0	5 0 0	Edinburgh and Glasgow	6,793	8,065	8,065	6,793
1,300,000	1,081,531	1 5 0	5 0 0	Glasgow, Paisley, and Ayr	4,611	6,227	6,227	4,611
800,000	797,643	0 5 0	2 0 0	Glasgow, Paisley, and Greenock ..	2,337	2,527	2,527	2,337
2,264,333	2,597,317	2 10 0	10 0 0	Grand Junction, included in the London and Birmingham	21,417	.....	.....	21,417
—	82,558	—	—	Gravesend and Rochester .....	.....	376	376	Not open
1,730,000	1,280,076	3 0 0	6 0 0	Great North of England	4,450	.....	.....	4,450
2,100,000	7,717,043	3 4 0	8 0 0	Great Western	40,111	44,998	45,700	40,111
—	—	—	—	Hartlepool .....	.....	3,187	3,187	.....
1,232,273	1,774,331	5 0 0	10 0 0	Hull and Selby, included in the Liverpool and Manchester	13,267	.....	.....	13,267
6,411,200	6,967,056	5 0 0	10 0 0	London and Birm. & Grand Junc.	42,631	90,931	90,931	42,625
1,005,000	1,077,802	0 2 0	1 4 0	London and Blackwall	2,085	2,130	2,127	2,085
1,200,000	2,653,673	1 0 0	4 0 0	London and Brighton	8,955	10,141	10,141	8,965
301,333	707,845	0 8 0	4 0 0	London and Croydon	2,879	3,430	3,426	2,879
2,557,000	2,620,734	1 17 6	9 0 0	London and South Western	14,975	16,306	16,306	14,975
2,800,000	1,960,062	1 0 0	5 0 0	Manchester and Birmingham ..	9,646	11,866	11,736	9,646
4,028,323	3,972,260	2 16 0	8 0 0	Manchester and Leeds .....	.....	16,111	16,111	.....
650,000	805,998	2 14 0	5 16 0	Manchester and Bolton, & Bury ..	2,639	.....	2,693	2,639
4,128,000	6,227,801	3 0 0	6 0 0	Midland	25,851	41,178	41,178	25,851
1,250,000	1,137,365	—	5 0 0	Newcastle and Carlisle	4,283	4,871	4,871	4,283
—	1,156,379	1 0 0	8 0 0	Newcastle and Darlington	2,042	7,063	7,063	2,042
100,000	316,209	1 5 0	8 0 0	Newcastle and North Shields ..	1,037	1,263	1,263	1,037
—	1,080,581	3 7 6	6 15 0	N. Union & Bolton & Preston, inc. in G. June. & Man. & Leeds ..	4,223	.....	.....	4,223
400,000	433,014	0 10 0	2 0 0	Preston and Wyre	962	1,226	1,226	962
1,283,000	1,139,702	—	6 0 0	Sheffield and Manchester	2,201	5,021	5,021	2,201
3,630,377	611,073	2 6 11	—	South-Eastern and Dover	13,371	15,064	15,064	13,371
540,000	895,050	1 17 7	—	Taff Vale	2,600	3,168	3,168	2,600
800,000	338,353	0 17 6	2 15 0	Ulster	1,771	1,980	1,980	1,771
—	280,037	0 10 0	5 0 0	Yarmouth and Norwich .....	.....	.....	.....	.....
601,026	1,779,951	5 <i>os.</i> , 2 <i>s.</i>	10 0 0	York and North Midland	5,942	12,735	12,735	5,942
FOREIGN RAILWAYS.								
1,000,000	2,022,916	—	8 0 0	Paris and Orleans	12,156	.....	.....	12,156
1,440,000	—	0 18 0	9 1 2	Paris and Rouen .....	.....	.....	.....	11,889

^a Made up for the three weeks ending January 24th.

RAILWAY SHARE LISTS.

*. The letter (d) signifies discount; (p) premium; (x) exclusive of dividend;
and (n) exclusive of new shares.

Length Railw.	Length openet.	No. of Share.	Amt. of Share.	Amt. paid up.	Div. p. sh. year	NAME OF RAILWAY.	London Prices.				Liverpool Prices.	Leeds Prices.
							Jan. 3.	Jan. 10.	Jan. 17.	Jan. 24.		
50½	—	80,000	£	£	£	Aberdeen .....	£	£	£	£	..	..
55	55	9,500	100	100	£1½	Armagh, Coleraine & Portrush	132	132	130	130	..	130
—	—	9,500	25	17½	6½s.	Birmingham and Gloucester.	33	33	33	33	..	..
—	—	—	50	3	..	Ditto ¼ shares (issued 7½ dis.)	..	..	..	..	..	..
32½	—	—	20	2	..	Ditto ½ shares	1½p.	1½p.	1½p.	1½p.	..	..
76	76	15,000	100	70	28s.	Ditto and Oxford Junction	85	85	85	85	..	..
37½	37½	8,000	50	30	£1½	Brighton, Lewes, and Hastings	7 p.	6	6	6	..	..
—	—	33,680	50	3	..	Bristol and Exeter	27	28	27	27	..	..
—	—	36,000	50	30	..	Ditto (New)	54xn.	44	44	44	..	..
85	—	50,000	25	13	..	Bristol and Gloucester	1½p.	1½p.	1½p.	1½p.	..	..
84	—	42,000	50	10	..	Caledonian	1½p.	1½p.	1½p.	1½p.	..	..
23	—	6,000	20	2	..	Ditto (Extension)	2	2	2	2	..	..
—	—	65,000	20	2	..	Cambridge and Lincoln .....	..	..	..	..	..	..
—	—	18,000	50	3	..	Chester and Holyhead .....	..	..	..	..	..	..
—	—	—	25	13	..	Chichester and Brighton .....	..	..	..	..	..	..
—	—	—	25	13	..	Churnet Valley .....	..	..	..	..	..	..
—	—	—	25	13	..	Cork and Waterford .....	..	..	..	..	..	..
—	—	—	25	13	..	Corwall .....	..	..	..	..	..	..
—	—	—	25	13	..	Cov. Nuneaton, Birm. & Leic.	..	..	..	..	..	..
—	—	—	25	13	..	Direct Northern .....	..	..	..	..	..	..
—	—	—	25	13	..	Dublin and Belfast Junction ..	par.	..	..	..	..	..
—	—	—	25	13	..	Dublin and Galway	2 p.	2½p.	2 p.	2 p.	..	..
—	—	—	25	13	..	Dundalk and Enniskillen .....	..	..	..	..	..	..
50½	50½	144,000	25	14.16	4s.	Dundalk and Enniskillen	22½	22½	22½	22½	..	..
—	—	—	25	4.16	..	Eastern Counties	8½x.	8	7½	7½	..	..
—	—	144,000	6.13.4.	6.13.4.	..	Ditto (New) .....	..	..	..	..	..	..
—	—	—	6.13.4.	13.4	..	Ditto (Perpet.) 5 per cent. No.1.	..	..	..	..	..	..
16½	—	4,000	50	20	..	Ditto Ditto. Ditto. No. 2.	..	..	..	..	..	..
46	46	20,000	25	14	..	Eastern Union .....	..	..	..	..	..	..
46	46	18,000	50	50	£1½	Ditto (Extension)	90	78	76	76	..	76
—	—	18,000	12½	5	5.7½	Edinburgh and Glasgow	19	19	19	19	..	..
—	—	10,800	25	13	..	Ditto (Quarter shares)	6	6	6	6	..	..
123	—	20,000	50	15	..	Ditto (New Quarter shares) ..	8 p.	7 p.	7 p.	8 p.	..	..
45	45	24,000	50	24	..	Ely and Bedford	7 p.	7 p.	7 p.	8 p.	..	..
—	—	10,000	100	100	£3	Great S. and Western (Ireland)	217½	217½	217	217½	..	215
—	—	7,500	40	5	10s.	Ditto (Extension)	47	47	47	47	..	..
118½	118½	25,000	100	80	£4	Ditto (New)	27	27	28	28	..	..
—	—	25,000	50	5	£2	Great Western	82	80	80	80	..	80
—	—	37,500	20	20	12½s.	Ditto (Half shares)	43	45	42	42	..	42
77	—	20,000	50	24	..	Ditto (Fifths)	18	17	15	18	..	..
31	31	8,000	50	50	£1½	Guildford, Fareham, & Ports.	par.	..	..	..	..	..
—	—	8,000	12½	12½	8½s.	Hull and Selby	106	106	106	106	..	107
—	—	—	25	2	..	Ditto (Quarter shares)	9	9½p.	9½p.	9½p.	..	..
—	—	16,000	50	25	..	Ditto (Half shares)	20 p.	20 p.	20	20	..	..
—	—	—	20	22	..	Lancaster and Carlisle	23xn.	23xn.	23xn.	24	..	..
112½	112½	41,250	100	27½	£5	Leicester and Bedford	11p.	11p.	11p.	11p.	..	..
—	—	41,250	38	10	27½	London and Birmingham	22½	22½	22½	22½	..	224
—	—	54,450	25	2	20½s.	Ditto (Thirds)	25	25	25	25	..	25½
3	3½	48,000	25	16.13.4	..	Ditto (Quarters)	94	94	94	94	..	..
46½	46	36,000	50	50	£1½	London and Blackwall	24	24	24	24	..	..
—	—	—	50	35	5s.	Ditto (New)	13	13	13	13	..	..
8½	8½	33,000	20	13.15.9	5s.	London and Brighton	69	68½	68½	68	..	..
—	—	—	20	13.4	..	Ditto (Consolidated Eighths) ..	15	15	15	14	..	..
—	—	—	9	6	..	London and Croydon	23	23	22½	22½	..	..
—	—	—	20	13.4	..	Ditto (New) .....	..	..	..	..	..	..
—	—	—	20	13.4	..	Ditto (Guaranteed) 5 per cent.	1 p.	1 p.	1 x.	1 x.	..	..
34	34	43,077	20	12.15.4	..	London and Greenwich	10½	11	11	11	..	..
—	—	11,136	20	18.17.2	10s.	Ditto (Preference)	24	25	24	24	..	..
92½	92½	46,200	50	41.6.10	£2	London and South Western ..	77	79	78	78	..	..
—	—	6,000	40	20	6s.	Ditto (Consol. Eighths)	15 p.	16 p.	16 p.	16 p.	..	..
—	—	—	40	2	..	Ditto (New)	12 p.	12 p.	12 p.	11½p.	..	..
185½	—	100,000	50	24	..	Ditto (New)	9 p.	9 p.	9 p.	9 p.	..	..
—	—	—	50	24	..	London and York	2½	2½p.	1½p.	1½p.	..	..
—	—	10,000	50	24	..	Londonderry and Coleraine ..	1 p.	1 p.	1 p.	1 p.	..	..
26	—	13,200	25	13	..	Londonderry and Enniskillen	..	..	..	..	..	..
—	—	8,000	25	24	..	Lynn and Dereham	3 p.	1½p.	1½p.	1½p.	..	..
51	51	13,000	100	76	49s.	Lynn and Ely	3 p.	3 p.	3xn.	3xn.	..	..
—	—	—	50	34	21s.	Manchester and Leeds	62xn.	66 p.	55 p.	55 p.	..	54
—	—	—	25	2	2s.	Ditto (Half shares)	30xn.	28 p.	25 p.	25 p.	..	26
—	—	—	61	34	..	Ditto (Quarter shares)	16xn.	15 p.	15 p.	15 p.	..	..
31½	31½	30,000	40	40	£1	Ditto (Sixteenths)	5 p.	4 p.	4 p.	4 p.	..	..
—	—	—	10	4	..	Manchester and Birmingham ..	78	78	79	79	..	79
—	—	—	2	2	..	Ditto (Quarter shares)	8 p.	7½p.	7½p.	8 p.	..	7½
—	—	—	2	2	..	Ditto (New Quarter shares) ..	8 p.	7½	7½p.	8 p.	..	..
130½	130½	40,000	100	22	£3	Manch'r, Buxton, & Matlock ..	3 p.	3 p.	2½p.	2 p.	..	..
48	48	9,180	Stock	100	46½s.	Midland	152	156	156	153	..	150
—	—	—	40	2	..	Ditto (New)	19 p.	19	18½p.	17 p.	..	17p.
95	95	20,000	25	25	17½s.	Ditto (Birmingham & Derby ..	122	123	124	124	..	..
—	—	—	25	10	..	Midland, Great West. (Irish) ..	36 p.	36 p.	37 p.	34 p.	..	34
—	—	—	25	10	..	Newcastle & Darlington Junc.	35 p.	36 p.	37 p.	34 p.	..	61
—	—	—	25	10	..	Ditto (New) Brandling	35 p.	36 p.	37 p.	34 p.	..	..

Length Railway p. sh. opened	No. of Shares.	Amt. of Share.	Amt. paid up.	Div. p. sh. year	NAME OF RAILWAY.	London Prices.				Liverpool Prices.	Leeds Prices.
						Jan. 3.	Jan. 10.	Jan. 17.	Jan. 24.		
79	28,000	25	11	..	Newcastle and Berwick	10 p.	10½p.	13 p.	11½p.	..	..
57	15,000	50	21	..	Newark and Enniskillen .....	..	..	..	..	..	..
57	24,000	25	11	..	Newark and Sheffield	9 p.	8½p.	8 p.	8 p.	..	..
57	22,500	25	12½	..	North British	9 p.	8½p.	8 p.	8 p.	..	..
57	12½	50	1	..	Ditto (New)	4½p.	4 p.	4 p.	4 p.	..	..
57	14,400	50	45	£1½	Northern and Eastern	68	72	68½n.	71½n.	..	..
57	3,136	50	30	7½s.	Ditto (Scrip) issued 5 disc.	23 p.	22 p.	19 p.	21 p.	..	..
57	12,908	12½	12½	5½s.	Ditto (Quarter shares)	18½	18 p.	18 p.	18 p.	..	..
57	..	50	24	..	North Kent	4½p.	4 p.	4 p.	4 p.	..	..
57	..	50	22	..	North Staffordshire	4½p.	4 p.	4 p.	4 p.	..	..
57	..	25	14	..	North Wales .....	..	..	..	..	..	..
57	19,000	50	14	..	Norwich and Brandon	9 p.	9 p.	8	8	..	..
57	..	50	21	..	Ditto (New)	4½p.	4 p.	4 p.	4 p.	..	..
57	30,000	50	21	..	Oxford and Worcester	44	34p.	34p.	34p.	..	..
57	..	50	21	..	Portsmouth Direct	11	2½p.	2 p.	2	..	..
57	2,600	50	50	..	Preston and Wyre	35	30	35½	35½	35p.	..
57	13,000	50	1	..	Richmond & West End Junc.	8 p.	8 p.	7 p.	7	..	..
57	35,000	20	1	..	Rugby, W. and Tring .....	..	..	..	..	..	..
57	28,000	25	9½	..	Scottish Central	9½n.	9 p.	9½	7½	..	..
57	..	25	14	..	Scottish Midland	2 p.	2 p.	1½	1½	..	..
57	18,000	50	2½	..	Shrewsbury, Wolverhampton, Dudley, and Birmingham	2½p.	2½p.	2	1½	..	..
57	..	50	22½	..	Shrewsb. & Trent Vall. Union	4 p.	3	3 p.	3 p.	..	..
57	22,000	50	20	..	South Devon	40	38½	39	39	..	..
57	30,000	50	33.2.4	10½s.	South Eastern and Dover	4½p.	3½	4	4 p.	4p.	4½
57	..	50	7	1½s.	Ditto (New) issd at £32, No. 1.	4½p.	3½	4	4 p.	..	..
57	..	50	21	..	Ditto (New) £33 6s. 8d. No. 2.	3½p.	3½	3	3 p.	..	..
57	..	50	22	..	Ditto (New) £30, No. 3	4 p.	3½	3	3 p.	..	..
57	..	50	21	..	South Midland	13p.	14	14	14p.	..	..
57	50,000	20	1	..	South Wales	14p.	14	14	14p.	..	..
57	45,000	20	2	..	Staines and Richmond	16	16	16	16	..	..
57	..	25	18	..	Trent Valley	par.	4d.	4d.	4d.	..	..
57	..	50	1	..	Trent Valley and Holyd Junc. ....	..	..	..	..	..	..
57	..	50	21	..	Waterford and Kilkenny .....	..	..	..	..	..	..
57	7,500	20	20	10s.	Welsh Midland	9 p.	9 p.	8	8	..	..
57	..	20	14	2½s.	Yarmouth and Norwich	115	115	115	115	103	115
57	7,500	50	50	£2½	Ditto (New)	57	57	57	57	51	56
57	6,700	25	25	£1	York and North Midland	57	57	57	57	43	..
57	10,400	25	25	..	Ditto (Half shares)	60 p.	60 p.	60 p.	60 p.	50	..
57	7,500	50	20	..	Ditto, Scarborough Branch	26½p.	26½p.	26½p.	25 p.	..	..
57	..	25	14	12½	York and Selby .....	..	..	..	..	..	..
57	..	..	..	..	Ditto (Extension) .....	..	..	..	..	..	..

FOREIGN RAILWAYS.

160	..	20	2	..	Bordeaux and Toulouse .....	..	..	..	..	..	..
96	..	20	2	..	Bordeaux, Toulouse, & Cette .....	..	..	..	..	..	..
..	75,000	20	2	..	Boulogne and Amiens	2½p.	2½p.	2½p.	2½p.	..	..
..	..	20	2	..	Central of Spain	4d.	4d.	4d.	4d.	..	..
300	..	20	3	..	Dutch Rhemish	3 p.	3 p.	3 p.	3½p.	..	..
300	..	20	4	..	Gt. North. of France (constitd.) ..	10½p.	10 p.	9½	10 p.	..	..
..	..	20	2	..	Great Paris and Lyons	4½p.	4½p.	4½p.	4½p.	..	..
..	..	20	1½	..	Jamaica Junction	2½	2½p.	3½p.	4	..	..
143	..	20	4	..	Louvain and Jemappe	1½d.	1½d.	1½d.	1½d.	..	..
..	120,000	20	2	..	Lyons and Avignon	8p.	8p.	8p.	8p.	..	..
..	..	20	4	..	Namur and Liege	par.	4p.	4d.	4d.	..	..
80	..	20	6	..	Orleans and Vicron	8½p.	8½p.	7½p.	8 p.	..	..
..	100,000	20	4	..	Orleans and Bordeaux	6½p.	6 p.	5½p.	5½p.	..	..
..	..	20	4.3.4	..	Over-Yssel	1 d.	1 d.	1 d.	1 d.	..	..
220	125,000	20	2	..	Paris and Lyons (Lafitte)	4p.	4p.	4p.	4p.	..	..
..	..	20	2	..	Ditto (constituted) .....	..	..	..	..	..	..
..	..	20	2	..	Ditto (Gannetons)	4p.	4p.	4p.	4p.	..	..
..	..	20	2	..	Ditto (Callons)	4p.	4p.	4p.	4p.	..	..
82	80,000	20	20	19s.	Paris and Orleans	49½	50	49 x.	49½x.	..	..
84	72,000	20	20	10s.	Paris and Rouen	40½	40½	40	40½x.	..	..
500	..	20	2	..	Paris and Strasbourg (Ganns) ..	4p.	..	..	..	..	..
..	..	20	2	..	Ditto (Compe de L'est)	4p.	..	..	..	..	..
..	40,000	20	16	2 p.ct.	Rouen and Havre	13½p.	13½	10	10½	..	..
..	..	20	2	..	Royal North of Spain	4d.	4d.	4d.	4d.	..	..
..	21,000	20	2	..	Sambre and Meuse	4p.	4p.	4p.	4p.	..	..
..	84,000	14	14	6.25fr.	Strasbourg and Basle	10 p.	10 p.	10	10 p.	..	..
..	10,000	20	2	..	Tours and Nantes (Mackenzie) ..	..	..	..	..	..	..
..	..	20	2	..	West Flanders	13p.	2 p.	1½p.	1½p.	..	..

No. of Shares.	ENGLISH. Name of Company.	Am out of Share.	Amount paid.	Div. per c. per ann.	Price.	No. of Shares.	FOREIGN. Name of Company.	Amount of Share.	Amount paid.	Div. per c. per ann.	Price.
1000	Agar Wheel.....	£	£	£	£	4000	Alten	£	£	£	£
500	Anglesey	100	5	..	..	10000	Anglo-Mexican	100	100	13	3
4000	Bedford	5	24	..	..	3374	Ditto Subscription	25	25	..	3
100	Botallack	175	60	400	..	15000	Asturian	20	5	..	6
8000	Blaenavon	50	..	..	..	2000	Bolano	150	150	7	7
120	Brewer .....	..	30	35	..	..	Ditto Scrip	25	25	..	..
128	Caradon Mines	1	80	10000	..	10000	Bolivar Copper	20	20	..	..
256	Caradon United	9	22	10000	..	10000	Ditto Scrip	10	10	..	..
114	Charlestown .....	..	300	10000	..	10000	Brazilian Imperial	35	21	7	..
100	Consolidated Mines	1000	500	18000	..	18000	Candonga	20	7	..	..
3000	Cornubian Lead	3	2	..	..	..	Ditto Registered	20	7	..	..
128	Comfort .....	..	30	10000	..	10000	Cata Branca	10	6	..	..
512	Cook's Kitchen .....	..	10	12000	..	12000	Cobre Copper	40	40	22	..
1000	Corn Brea	15	130	8500	..	8500	Colombian	55	55	..	..
1000	Callington	15	25	1500	..	1500	Ditto New	11	11	4	..
128	Caradon Consols .....	..	130	10000	..	10000	Conceicao	4	..	..	..
128	Creeg Braws	96	80	10000	..	10000	Coplapo	20	14	5	..
128	Dolcoath .....	..	100	20000	..	20000	General Mining Association	20	20	16	..
1000	Durham County Coal Company	37	..	5351	..	5351	Mexican	60	50	31	..
128	East Pool	5	55	6000	..	6000	Mocubas and Coeas	25	25	5	..
94	East Wheel Crofty	130	400	360	..	360	Real Del Monte, Registered	25	25	..	..
128	East Wheel Rose	50	1600	100	..	100	Ditto, Unregistered	25	25	..	..
512	Fowey Consols .....	..	100	25003	..	25003	Ditto, Red Deben- tures	73	..	..	..
256	Gonomena	1	100	1873	..	1873	Ditto, Black	71	..	..	..
240	Grambler and St. Aubyn .....	..	90	3548	..	3548	Ditto, Red and Black .....	..	..	..	..
1000	Godolphin .....	..	9	7000	..	7000	Royal Santiago de Cuba	25	10	17	..
1000	Hanson	6	..	11000	..	11000	St. John Del Rey	20	15	9	..
1000	Holmbush	100	14	43174	..	43174	United Mexican	av.	28	4	..
128	Hallenbegie .....	..	50	..	..	..	..	..	..	..	..
80	Levant .....	..	350	..	..	..	..	..	..	..	..
128	Lanarth and Pea- struthal .....	..	..	..	..	..	..	..	..	..	..
1000	Lewis	3	5	..	..	..	..	..	..	..	..
20000	Mining Company of Ireland	7	13	..	..	..	..	..	..	..	..
2800	Mark Valley	10	4	..	..	..	..	..	..	..	..
70	North Roskear	130	620	..	..	..	..	..	..	..	..
256	North Rose	90	80	..	..	..	..	..	..	..	..
128	Par Consols	1	600	..	..	..	..	..	..	..	..
256	Pencorse .....	..	10	..	..	..	..	..	..	..	..
128	Pen Park	90	..	..	..	..	..	..	..	..	..
800	South Towan	10	..	..	..	..	..	..	..	..	..
256	St. Austell Consols	3	10	..	..	..	..	..	..	..	..
1000	Stray Park	43	20	..	..	..	..	..	..	..	..
128	South Wheel Bassett .....	..	30	250	..	250	..	..	..	..	..
128	South Caradon	5	75	450	..	450	..	..	..	..	..
120	Trethellan	5	30	100	..	100	..	..	..	..	..
128	Trewavas .....	..	60	..	..	..	..	..	..	..	..
120	Trevisky and Bar- rier	61	250	..	..	..	..	..	..	..	..
96	Treavean	10	350	..	..	..	..	..	..	..	..
128	Tokenbury	80	110	..	..	..	..	..	..	..	..
5000	Treleigh Consols	6	5	4	..	4	..	..	..	..	..
9600	Tamar Consols	5	3	9	..	9	..	..	..	..	..
6000	Tin Croft	10	7	14	..	14	..	..	..	..	..
256	Tresow Consols .....	..	150	..	..	150	..	..	..	..	..
5000	Trefoil Consols	5	2	4	..	4	..	..	..	..	..
128	Trewellard	13	..	..	..	..	..	..	..	..	..
4000	United Hills	5	48	..	..	..	..	..	..	..	..
100	United Mines .....	..	800	..	..	..	..	..	..	..	..
6000	Wicklow Copper	5	20	..	..	..	..	..	..	..	..
128	Wheel Catherine	5	25	..	..	..	..	..	..	..	..
384	Wheel Franco	15	..	..	..	..	..	..	..	..	..
128	Wheel Virgin .....	..	..	..	..	..	..	..	..	..	..
128	West Caradon	40	75	350	..	350	..	..	..	..	..
50	Wheel Vor .....	..	250	..	..	..	..	..	..	..	..
256	West Treasury	3	8	..	..	..	..	..	..	..	..
6845	West Wheel Jewel	10	31	..	..	..	..	..	..	..	..
120	West Trethellan .....	..	50	..	..	..	..	..	..	..	..
100	Wheel Harriett .....	..	..	..	..	..	..	..	..	..	..
128	Wheel Henry .....	..	37	..	..	..	..	..	..	..	..
128	Wheel Providence	16	150	..	..	..	..	..	..	..	..
60	Wheel Seton	150	600	..	..	..	..	..	..	..	..
128	West Bassett	20	45	..	..	..	..	..	..	..	..
128	Wheel Albert	10	17	..	..	..	..	..	..	..	..
128	Wheel Aciand	10	17	..	..	..	..	..	..	..	..
4000	Wheel Martha	5	2	3	..	..	..	..	..	..	..

PROGRESS OF RAILWAY LEGISLATION.

RAILWAY legislation has gone on a little more favourably than it gave promise of doing a month ago. Two notable terrors are past;—the terror of the deposits with the Accountant-General, and the terror of the smothering committee which the Premier volunteered to appoint, and which we made some remarks about in our last. It appears that during the last six months deposits to the amount of eleven millions and a half have been very quietly made on account of various railway companies with the Accountant-General, and this without any explosion in the Money Market, or the aid of any of that wonderful machinery of transfer which some profound thinkers predicted would be necessary. This is just as we said it would be in our January number, except that the amount actually deposited exceeds our estimate by some couple of millions. But the deposit alarm was nothing to that inspired by the announcement of Sir Robert Peel, on an early day in the session, of an intention to decimate the struggling railway schemes, and the appointment of a secret committee intrusted with the invidious task of selecting the victims. This was a crowning blow which for the moment inspired dismay in the stoutest heart, and made every unhappy scripholder begin to think that there must be something inherently vicious and fatal in the very nature of a railway. Our remarks upon the justice and the expediency of this extraordinary step, written, it is true, in haste at the close of last month, may be in the recollection of our readers; and glad are we now, within four little weeks, to congratulate them and ourselves upon the result in which this bit of experimental legislation has terminated.

Great as is the influence of the “eminently practical” Premier,—safe as he is considered on all financial questions,—and servilely as his dictum has on many occasions been followed by men of business of all classes, we still could not help thinking that there was something in the right honourable gentleman’s scheme of interference with railway matters so unjust and unconstitutional, so at variance with all the acknowledged principles of free commerce and enterprise, that even a committee of the House of Commons, nominated by himself, might hesitate to sanction it. Accordingly, after two minor reports, bearing distinctly upon the order in which railway business should be taken, and proposing amongst others a very prudent plan for dividing the initiative in business of this kind between the two houses, instead of leaving it all to the Commons as heretofore, the committee, on the 17th of February, came out with a report, in which they completely disallow the step proposed by Sir Robert Peel for arbitrarily limiting the number of railway bills, and the amount of capital to be engaged in such undertakings. The committee tell us, in the first instance, that there are 562 petitions for railway bills before the House, of which 395 belong to England, 120 to Scotland, and 47 to Ireland; but that it is probable that this number may be very considerably thinned when passing through the ordeal of the standing orders. They then go on to say, that as by a resolution of the House, founded

upon a previous report of this committee, Irish bills, and a certain class of English bills, will have to commence in the House of Lords, they think by an early application to the business before them, "it will not be impossible to constitute the requisite number of committees during the present session" to consider these schemes in detail. For the rest, how remarkably in contrast are the words of the committee and the right honourable baronet who appointed them! Sir Robert Peel on the 2nd of January said:—

"I think that it is a grave question whether or not we will permit or encourage so great an application of capital towards these railway schemes; whether or not that will be consistent with public advantage, and whether it will really conduce to the satisfactory carrying on of railway enterprise? As I said before, I am willing to admit that the application of British capital to British railways in preference to foreign schemes is to be encouraged rather than otherwise; but is it advantageous to the promotion of sound railway enterprise that such enormous capital should at once be applied to it? I doubt it even for the purpose of sound railway enterprise itself. I believe it to be probable, in consequence of severe competition, that there will be a great and extraordinary demand for labour, and a rise in the price of the materials essential for the completion of railways . . . I doubt, if (six hundred, or five hundred railway schemes, or perhaps treble the amount that was under consideration last year, were to be pressed forward this year, whether the power of this House would enable it to make satisfactory inquiry into the merits of each scheme. I more doubt whether it would be for the public advantage to encourage so sudden and extraordinary a demand for labour, so great an application of capital to one species of industry, and its consequent diversion from others."

To the cautious Premier's doubts as to the ability of Parliament to get through the five or six hundred railway schemes of the present session, we have already given the answer of the committee. To the doubts as to the prudence of encouraging so great an application of public money to such purposes, they reply as follows in their report above alluded to:—

"Under these circumstances your committee have not deemed it advisable to recommend to the House to make any selections from, or to place any limitation on, the number of railway schemes to be submitted to the consideration of Parliament during the present session."

We rejoice at this decision, because it is a sound one, and one consistent with all the accustomed policy of the country in matters of commercial enterprise. We should have been sorry if it could have been proved to the satisfaction of any committee of the House of Commons, that all of a sudden there had manifested itself something of such weakness and rottenness in our monetary state, to render it necessary to place the country and its private purse-strings in the keeping of a minister of the crown. For Sir R. Peel was pleased to say, that, through the mouth of one of the Government who should be on the committee, (Lord G. Somerset,) he would announce how much money *he* thought we might be permitted to spend in railways. What that amount was will probably never be known, as the committee was sworn to secrecy; but, whatever the amount, the committee did wisely and manfully in resisting the very principle of the suggestion. Do not let it be supposed that by what we say on this point we would be understood to sanction a reckless and wholesale investment, or rather involvement of capital,

in undertakings of this description. Some restriction is necessary to be administered by a third and impartial hand; but this can be done as well in detail, upon consideration of the individual prospects and claims of each scheme, as by a predetermined rule, excluding a party unheard and out of court.

The committee further, with a view to the more efficient conduct of the business before Parliament, make some very useful suggestions,—namely,

“As your committee, however, believe that much of the time of the select committees on railway bills is consumed, with little public benefit, in minute and detailed enquiries into the amount of traffic and the probable profit of the projectors, your committee are of opinion that the standing orders on these points should be altered, and that it should no longer be obligatory [but permissive in the next clause] on committees on railway bills to make special reports on them.”

Unopposed bills in any group, the committee recommend may be referred at once by the committee on the group to the Chairman of Ways and Means.

The committee on Standing Orders has also taken a lesson by the past, and come to some resolutions at the outset of their labour which will tend materially to discourage vexatious opposition, and to shorten the proceedings, and lessen the expense, of these preliminary investigations. They announced to the agents for private bills that they would discourage to the utmost in their power all frivolous and vexatious charges; and that they would summon no witness, nor call for any evidence, unless it were declared to them that it was essential to the true merits of the case. The consequence of this wise resolution has been already manifest. In the short period which has elapsed since the opening of the session, some sixty or seventy bills have already passed Standing Orders, and been read a second time.

The plan of referring certain bills, in the initiative, to the upper House, will considerably lighten the labours of the session, and in the case of certain English bills, will prove an immense saving of expense. The London and York bill, for instance, by beginning in the Lords, will come at once into competition with the Direct Northern in a new field, where their relative merits have not yet been discussed. Should the decision of the House of Lords be in favour of the York, it will probably be considered as settling the question, the opinion of the Commons having been last year recorded in its favour. On the other hand, should the Direct Northern prevail over their adversaries with their lordships, a fierce and interesting struggle in the Commons, a struggle leading to real results, and worth all the money it may cost, will necessarily ensue.

Upon the whole we look favourably at the state and prospects of railways as far as relates to their parliamentary relations; and if parliament only endures, that is, if the terror of a dissolution (the third and last great terror now before railway promoters) be resolved in the negative, we have no doubt a considerable additional stimulus will be given to railway enterprise. By the time these pages are printed this important question will be virtually resolved by the vote on the Corn Law question. On the other hand, should there be a dissolution, though

this would, strictly speaking, have the effect of throwing out all railway bills indiscriminately, we think it not improbable that, in a case where so large an amount of public money and the results of so much individual energy were concerned, the new parliament might see fit to ordain that the railway business of the country should proceed uninterruptedly, despite the technical interruption which a dissolution necessarily operates.

RAILWAYS IN INDIA.

(FROM A CORRESPONDENT IN INDIA.)

IN considering the subject of railways in India, it may be as well to divide the subject into three heads, viz., the practicability of constructing them, the prospect of their paying, and the advantages which will accrue not only to India itself, but to the mother country, if we may so term Great Britain in regard to India; and, surely, as India is becoming a new country, she need not hesitate to be the adopted daughter of Britannia.

Now, as to the practicability of constructing railways in India, I need not tell you, Mr. Editor, how very few difficulties are to be encountered in a long line of country; I need not say that these few difficulties, though troublesome in themselves, are any thing but insurmountable. Nor, perhaps, is it much to the English public to be told about them, while those who are interested will naturally look forward to the reports of the scientific men sent out to survey the country. Yet, as a subject of great interest, and one which will bring about such amazing changes, I cannot but think that a little information, (albeit but vague and uncertain as compared with survey reports,) on the practicability of constructing railways, will be acceptable to your readers.

India, generally speaking, is almost a dead level, from the bays of Bengal and Bombay, to the foot of the Himalayas. On the Bengal side are a few low hills intersecting the country, from Mirzapore, on the Ganges, towards Bombay, which form in the interior the range of ghauts above the valley of the Nerbudda. A spur of the same chain extends to Rajmahal. These are the only obstacles of a hilly nature to be found between Calcutta and the Himalayas. On the Ganges side the hilly ground does not, properly speaking, give any table-land higher on one side than the other; but on the Bombay side, where what are called the Ghauts are situated, the land towards the north is a high table-land, the south side being the valley of the Nerbudda. I may, however, note here, that were a railway to run from any point of the Ganges between Mirzapore and Rajmahal, and proceed in a south-west or westerly direction, it would meet the table-land forming the districts of Bundelkhund and Sangor, the Mahratta states (except Nagpore), &c. But it is not necessary to proceed in this direction at all, at least for a main

line; and, therefore, as I have already stated, there are but two spurs of a chain of hills to get over, with dead levels (or what in common parlance may be so called) between and on either hand.

The next species of obstacles which are likely to be troublesome in themselves, though not insurmountable, are the very low lands between the Ganges and the Bay of Bengal, and one or two rivers higher up the country. The first, the low lands, may cause no little expense. It may be necessary to pile a great deal of it, and to form strong embankments to stand the yearly periodical flooding during the rainy season. There may be from 100 to 150 miles which would require to be thus constructed, and this would, therefore, in all probability, prove to be the most expensive portion of a line between Calcutta and the Himalayas. Yet the embankment need not be of great strength throughout, but only where it would have to withstand the force of a current, where, for instance, it might run near or parallel to any of the outlets of the Ganges, which are apt, by the negligence of the government officials in charge, to burst their embankments and overflow the surrounding country. But the railway company might apply for and receive charge of these river embankments, with a sufficient contract to keep them in thorough order; and if so, they would thereby escape the necessity of rendering their own embankments so strong as they otherwise *must* do. If the Railway Company, having a contract, were to neglect the river banks, they would not only deserve to suffer, but doubtless their contract would carry a penalty. The floodings from heavy rain do damage to crops, but would never, in any degree, affect the security of a good embankment for a road.

The second obstacle above noted, the one or two rivers higher up the country, is, in reality, one which will be easily overcome. It looks formidable; the appearance of the Soane, both when full to overflowing, and while wandering like a thread in the midst of an extensive sandy waste, leads the mind to imagine difficulties which, on being grappled with, are more likely to cause one to smile than to look grave. This same frightful Soane river, what is it? Why, in the rainy season, the high range of ghauts already mentioned, which intersects the interior of Hindostan towards Bombay, sends from its table-lands a large quantity of water, of which the Soane is the principal outlet into the Ganges. Coming from high ground so near at hand, and having but a short distance to run in the valley of the Ganges, the Ganges itself being moreover full to the brim with its own accumulations from the north-west, it naturally overflows all the low lands on each side of it, and assumes for a few weeks the appearance of a broad river. As the Ganges begins to subside, the waters of the Soane, finding an outlet at last, begin to rush on, and for a few days a strong current flows. After the monsoon the Soane becomes again a narrow river, wandering in a sandy waste. There are one or two more outlets from the same hilly range, to carry off the waters of the highlands; one a brawling surly brook, named the Kurmnassa, accursed in the sight of all good Hindoos, who will not wet their feet in its stream; but there is not one which, in England, would give one moment's uneasiness with regard to the subduing of any difficulty it might present. To bridge the Soane will doubtless be expensive, from the length to which the bridging must extend, so as to give free vent to the periodical inundation; the other

rivers being deeper and narrower, will cost comparatively little; and then these are the only expensive operations betwixt the spur of hill at Rajmahal and the spur of the same chain above Mirzapore, the rest of the country being admirably adapted for a railway.

We have now got our rails laid down to Mirzapore, nearly (so to speak) half way to the Himalayas. Beyond Mirzapore we have to surmount the spur of the hills above mentioned, and continue on a short distance over a fine level, till we get to the river Jumna, opposite Allahabad. I will not take on myself to say in what manner the connexion is to be made here. There is, however, not the smallest difficulty; as, at Allahabad, the Jumna is tolerably narrow, being confined by high banks, and, as a consequence, is here very deep in the rains. Once across the Jumna then is a fine level country, without almost the smallest obstacle, to Delhi or Meerutt, where the northern termini of the principal or main line from Calcutta would naturally be fixed. The few nuddies or rivulets in the Doab, (so is the country from Allahabad between the Jumna and Ganges called,) are of the most trifling nature; there are no swamps or hills, but a fine level country, dry and hard. Here the expense would be very low indeed, so much so as to counterbalance the heavy outlay below, and render a comprehensive railway from Calcutta to Meerutt, one of the cheapest in the world. So much for the practicability of constructing railways in India.

I have been somewhat diffuse, perhaps, but I trust not unnecessarily so, in discussing the difficulties to be overcome in constructing a main line of rail from Calcutta to the north-west. The next head of the subject which I am to consider, viz., the prospect of railways paying, is a much more difficult branch of inquiry, in the almost total absence of returns of interior traffic. It may be asked, why India, one of the most fertile and most favoured countries in the world, should be so backward in every thing which in Europe constitutes a civilized nation, and yet be at once one of the most famous trading countries in the world? Her systems of trade and of exchange, as far as her means and capabilities go, are perfect; it is in the mode of conveyance that we meet the imperfections, which go so far to obstruct and prevent any great strides in improvement. Railways will remove the great obstacle,—distance and the genius of the people will soon get rid of inferior ones. There was but one highway from the north-west to the mart of communication with the rest of the world, the Ganges, and its tributaries. When steam navigation had become well understood in England, it was introduced on the Ganges, and reduced the distance between Allahabad (on the confluence of the Jumna and Ganges) and Calcutta to about one-third or one-fourth of the usual voyage, both up and down. It was at its commencement firmly believed that the natives would never avail themselves of this mode of conveyance, as time was no object with them. Experience of the regularity, safety, and dispatch in the voyages of the steamers, however, soon begat confidence, and, after some hesitating trials, the number of steamers was found to be too small to overtake the demand for freight. Can a better proof be required of the prospect of railways paying well in India?

I will be told that one or two, or even three or four steamers dispatched in the course of the month from Calcutta to Allahabad—leaving out those carrying government stores—conveys no proof of such an ex-

tant of trade as would suffice for a railway. I grant it does not; but we must keep in mind that the great bulk of goods, both up and down the country, still goes by the old rude and lazy mode of flat-bottomed boats; we must remember that fifty steamers would scarcely supply the traffic, and that there are not ten on the line; we must recollect that every additional steamer put on the line has, so far from exhausting the traffic, only served to increase it. But, above all, we must not forget that the agency of steam-boats only assists the great marts situated on the banks of the Ganges up to Allahabad, leaving the interior of the country and the north-west provinces just where they were. It is here that the railway possesses the advantage over steam navigation, and I shall now proceed to point out the manner in which a railway will pay in India.

I observe, with regret, that instead of one railway from Calcutta to the north-west, several companies have been started, one even running parallel to another already proposed. This will never do: if it be only for a gambling speculation, indeed, it does not much matter, as far as India is concerned; but, I trust people will think well, before they give their money to commence a ruinous competition, when they have a wide field of operation wherein to choose for themselves. The first line contemplated was between Calcutta and Mirzapore. This is a splendid beginning, as being calculated to take in all the principal marts in Bengal Proper, and the central provinces. If this Company deemed it too gigantic an undertaking to extend the line to the north-west, there was then room for another company to make the extension, much to their own benefit as well as to that of their predecessor. But considering that the lower line will be very expensive, and the upper line a mere trifle in comparison, it would be better to have but one line from Calcutta to Meerutt or Delhi, so as to equalize the cost throughout, and enable the Company to afford carriage at the lowest possible rate—the only way in which a railway can flourish in India. Let it therefore be impressed on the minds of shareholders that detached lines, which may answer in a country like Great Britain, will only burn the fingers in India. Even the one from Calcutta to Mirzapore will disappoint the sanguine expectations of its proprietors without extension upwards. A Company proposes to go from Calcutta to Rajmahal on the Ganges—to what purpose? To save the steamers and the country flat-bottomed boats from pursuing their voyage farther? The districts through which it will pass are rich—but not rich enough to pay a railway, requiring to be constructed in the most expensive manner of any in India*,—being altogether in the low swampy lands of Lower Bengal. The scheme is a mad one, besides having a competitor in the Mirzapore line; and the talk of being a direct line is all nonsense—it is direct to a certain point of the Ganges, where no mart exists, nor traffic of any kind that could benefit by such a line. Instead of thus throwing away money, such a Company could take up branches from the main line to different districts on either hand, as necessity might require—there are some half dozen branch lines, which could be chalked out at once in Lower Bengal, and

* I see the Company, in their advertisement, allude to a once projected canal to prove the level nature of the country. But a canal has to be cut and embanked—a railway must be raised, and this constitutes a vast difference in a country liable to be flooded!

as many in the upper provinces. The main line should run as direct as possible to Mirzapore, thence to Allahabad, and from that to Delhi or Meerutt, as might be preferred. In this way railroads will most unquestionably pay well in India.

To enter into any remarks as to the extent of traffic which may be expected on lines of railway in India, would be superfluous—there are no means of calculating it. The traffic undoubtedly exists; but it is in its infancy—that is to say, the difficulty, and expense, and delay of transit, has kept traffic down to the very lowest limit which could supply demand, and thus the general poverty of this splendid country is easily accounted for. The cold weather, and a good portion of the hot season, is the chief trial for land carriage; and you will then meet, between large trading towns, camels and carts laden with produce—the former going leisurely at the rate of two, or it may be two and a half to three miles an hour, as they happen to be more or less laden—while the carts creep on at about a mile an hour or so—both making journeys of from eight to ten or twelve miles a day! What trade, think you, could flourish under such a system of conveyance? Let us, then, have one comprehensive line from Calcutta to Meerutt, and let branches strike off to all the great trading towns on either side; and, then, not only will the expense of construction be within the bounds of moderation, but the prospect of paying a reasonable profit will be ensured, and not left to chance or the operation of after circumstances.

I feel somewhat diffident in continuing this letter, from the length to which it has already spun itself out. The third head, into which I divided my subject, is one on which I could dilate, even to double the space I have already consumed—one, too, on which a philanthropist would delight to dwell. But I must have compassion both on you, Mr. Editor, and your readers, and sum up the advantages of railroads to India and to Great Britain, as succinctly as I possibly can.

By the latest intelligence from England we learn that, after all, the harvest, though not altogether a failure, is a short one; and, accompanied by the miserable fate of the potato crop, is likely to entail scarcity, if not famine, not only in Britain and Ireland, but throughout Europe. It is well, indeed—if matters be not worse than they promise to be—that we have such a warning: though far from an enthusiast in religion, I cannot help seeing the finger of the Almighty in this dispensation. To one nation, it might be something in the air, or in the ground, or in the mode of cultivating, and would be easily met by supplies from other more favoured countries;—but a universal blight—when every nation in Europe is rivalling its neighbour, as to which shall impose the most stringent rules against trade and the interchange of the produce of the common mother earth—in which, to its shame be it spoken, England was the leader, and is as yet one of the most obstinate adherents—does not the very universality of the visitation show that restrictions bring their own punishment with them! But I trust a better line of international policy will result from this dispensation of Heaven, and that all kinds of traffic will be freed from the shackles and trammels which have hitherto kept the trade of the world from expanding to that degree which would give to every country the greatest possible return for its produce, whether of the ground or of art.

What has this to do with railroads in India? I hear the reader ex-

claim. Much. Nay, on the argument I have just stated rests no small portion of the advantage to accrue to India, as well as to England, from a comprehensive system of railroads. I will take but one instance out of many with which I could fill not a few of your pages. Nearly throughout the Doab very fine wheat is produced, which, in tolerable seasons, is sold at from thirty seers to a maund per rupee, and at this rate tolerably well remunerates the cultivator. The ground, with a better system of agriculture, and a lighter tax on the land, could give a greater return than it now does—but let us leave this question aside. Take an average price of thirty-five seers of wheat per rupee, this is, within a small fraction, equal to eight rupees for a quarter, or at par sixteen shillings. But how is it to be conveyed from 500 to 800 miles to the shipping port? If sent immediately after the harvest is secured, it only reaches Calcutta by the time the rainy season has begun to set in, and the grain is spoiled; or, it must be kept till the following year. By a railroad, if a demand for wheat were to arise, as no doubt it would, the grain, after being got in, dried and thrashed out, would be on board the ship in a week from the time it was filled into the sack; and, escaping all the variations of climate, be landed in England in the most favourable season of the year. If the harvest, then, were abundant, the price of this Indian wheat would still afford a profit to the merchant, or its destination could be changed to any country which laboured under partial scarcity or famine. For, if a harvest is plentiful in England, where is the use of prohibiting importation. Who will take coals to Newcastle to undersell the produce of its mines? Who would import broadcloth to sell at Leeds; or buttons to hawk about in Birmingham? The productions of India which would form a large trade with Great Britain are many—those which are already established, such as sugar, indigo, cotton, (this latter, however, capable of immense improvement and consequent extension,) hides, saltpetre, &c., would be greatly increased; while many more, which are now impossible to export, would rise into importance, as articles of outward trade, not only to Great Britain, but to countries adjacent to India. For instance, there is but little wool exported from India—so little, indeed, that it is not quoted in the weekly price currents, yet there is no country could send better wool in greater abundance—but how is it to be conveyed to the ship's side? Cotton at present is neglected, because it cannot be produced on the high-taxed land, so as to compete with the untaxed produce of America. Yet can it be doubted that, when a parcel of good cotton can be met with, and shipped in a few days from the time of purchase, besides being conveyed to the ship in a cheap and safe manner—can it be doubted, I say, that the demand for cotton, and consequent desire to supply that demand, will not be greatly enlarged? It were folly to doubt it. So with sugar, and many other products of India.

But the advantages to Great Britain, to the mother which thus cherishes the adopted child of a far off climate, what will not be her reward! Extensive as are the importations of her manufactures into India, they cannot reach one-half of the marts where a large sale would take place. Wheresoever they have penetrated, they have met a ready and sure sale, under all the disadvantages of the present mode of transit. What, then, would not be the extent of trade, when the productions of the workshops of Great Britain could be conveyed to all parts of India

in the shortest possible time from their landing in India, and at the lowest possible cost of transmission!

I leave you, Mr. Editor, and your readers, to draw on your imaginations to fill in the picture—depend on it, the most glowing colours will not be misplaced—but there must be free trade—NO TRAMMELS.

I remain, Sir, yours obediently,

INDOPHILUS.

Bengal, December, 1845.

EFFECTS OF RAILWAYS IN INDIA UPON WARFARE.

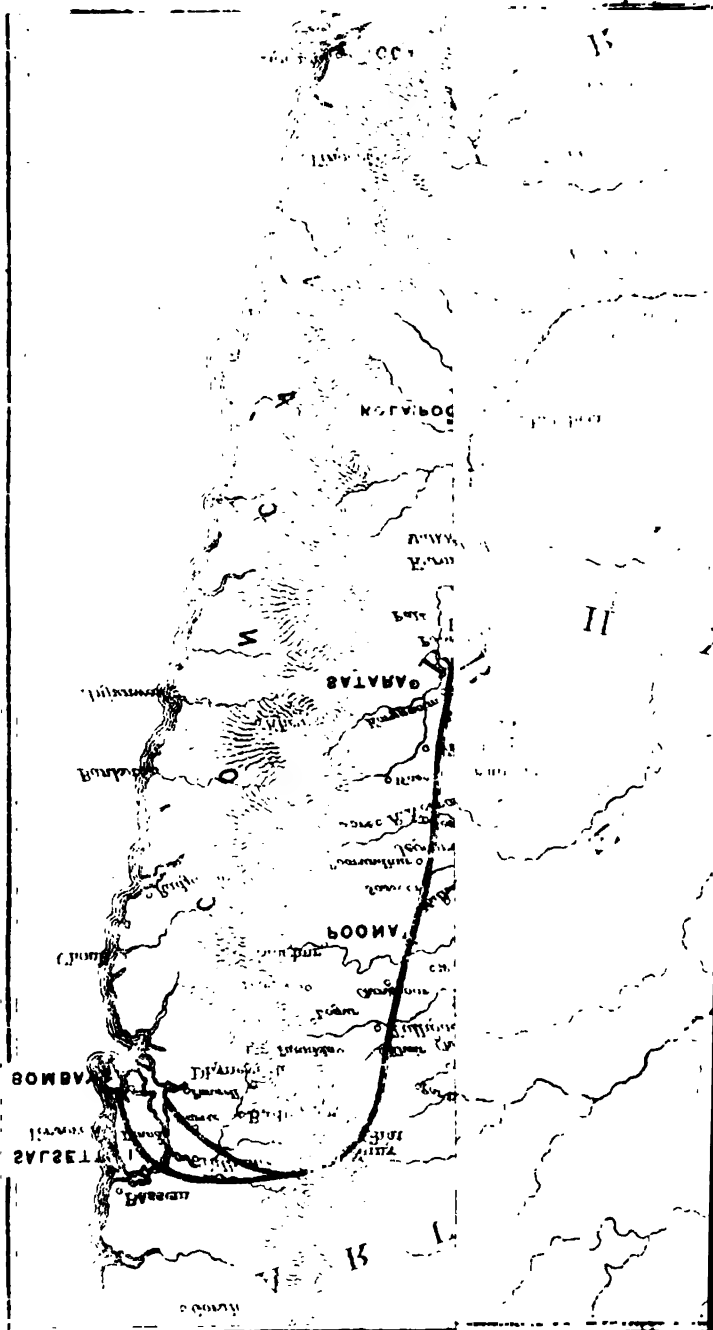
RECENT events in the East have contributed to give a degree of importance to these undertakings, which their intrinsic excellence as means of permanent and remunerative investment might have otherwise failed to engender. Had there been a railway in the valley of the Doab, says a Delhi journal with reference to the late irruption of the Seikhs into the British territory, how would the conveyance of troops and stores have been facilitated. We should not then have consumed a fortnight in concentrating troops at Ferozepore, hours would have sufficed, and endless labour and toil have been economized at the outset. So much for the value and utility of railways for military purposes. But is this, we ask, one-tenth part of the benefits that will accrue to India from the establishment of railways? Certainly not. There cannot be found a region of the world more adapted for them in every point of view. Not only will they have the field to themselves, inasmuch as there is an actual absence of any continuous means of communication between the several provinces and districts of India, but they will create a certain and increasing traffic wherever they traverse. In fact, they will revolutionize both the moral and physical face of the country.

Perhaps, after we abstract two leading facts from the points of comparison we are about to draw, it may be affirmed that railways in India may be placed in the same category with those originally established in the United States. In the case of the latter it was generally predicted, both in that country and Great Britain, that railways could never succeed, both from the sparsity of the population, and the insufficiency of traffic. But what has been the result? Why, that in no country have railways met with better or more complete success, (the majority paying an annual dividend ranging from six to fifteen per cent,) a success, it is true, not altogether arising from passenger traffic, though the locomotive character of the people has doubtless largely contributed, but from the spur which the establishment of railways gave to every branch of industry, and the opening they afforded to the development of the actual and hidden resources of the country.

In India, on the other hand, the temporary absence of a locomotive class—we say temporary, because we are convinced that any industrial population must needs to a certain extent be locomotive, if they have only the means for such enjoyment—is counterbalanced by the density of the population, and the fact that there must of necessity be a certain

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traffic to supply their wants and bear off their surplus transportation. Again, India has beneath and on the surface of most inexhaustible sources of wealth, resources exceeding most favoured states of the Union, the transport of which be divided by roads, rivers, canals, &c., but will be wholly on these great highways of the country.

Principal Indian railways now before the public are, for Bengal, "The Indian," "The Indian Peninsula" (in part), "The Great Bengal," "Great North of India," "Calcutta and Diamond" all of whose scrip is at a premium.

Madras Presidency there are, "The Madras Railway," "The Mallore, and Arcot," "The Madras Southern," "Madras, Sandicherry," and the "Cuddapah, Hyderabad, and Masulipatam" the two first of which are at a premium, and the whole remunerative schemes, which will complete the link of rail-communication with every district of the Carnatic and Dekkan is said to be legitimately open to its introduction. For the Bombay of Bombay there are, "The Indian Peninsula," and "The Karachi, and Surat Railway," two excellent lines.

In recent circumstances, it is believed by many clear-headed and sensible men that the whole of these lines will eventually pay a dividend exceeding that of the most promising railways in England; but the best test of their eventual success lies in the disposition made towards them by the native population, which, as far as it has gone, is of the most satisfactory character.

In proportion, however, as sound schemes should be held up to the public, irrational and absurd schemes should be condemned. We should, moreover, be especially warned from giving any countenance to schemes and visionary projects, which are calculated to involve to a certain extent in their disgrace the whole of the country, however sound, now proposed to be carried into execution.

DIRECT BOMBAY AND MADRAS RAILWAY COMPANY.

(WITH A MAP.)

We express our thanks to the members of the Provisional Committee who have undertaken this great enterprise, for the map explaining the scheme which they propose to carry out. It appears that the project is well founded, and that a respectable and influential body have been entrusted with its management, and that a large proportion of the shares has already been subscribed for. The line will connect the most wealthy and industrious provinces of the continent of India, the Carnatic and the Mysore, which abound in natural products, in manufacturing industry, and in agricultural wealth.

The two great presidencies of Madras and Bombay will be brought within a few hours' instead of months' journey of each other; and in-

stead of vessels sailing round the coast some hundreds of miles, as heretofore, with their costly cargoes, the latter can be easily transported to Bombay for shipment, and at infinitely less cost—a matter of first-rate importance.

The district traversed by the Direct Bombay and Madras Railway contains upwards of twenty millions of inhabitants; and the wants and industry of this large body already yield a considerable tonnage, although in a comparative state of barbarous communication. In the report of the Bombay Chamber of Commerce we find that the traffic to and from that city amounts to 187,343 tons annually, consisting chiefly of cotton and salt. These two items form merely a fraction of the requirements of the Indians. Bombay is unapproachable except by a dangerous and expensive sea-board, and a cheap and safe communication can alone render available her internal resources. Cotton has now to be transported 500 miles to the coast, to reach Bombay for shipment. A railway would naturally obviate so circuitous and expensive a route. Some idea may be formed of the destruction and delay occasioned by these journeys, when we state that the cotton is carried on the backs of oxen, at the rate of ten miles per day, which enormously augments its shipment price. The present cost of conveyance from Nagpore to the port of shipment is from 14*l.* to 20*l.* a ton, and the charge by rail of twopence a ton per mile would amount to 4*l.* 3*s.* 4*d.*—a considerable difference. The same facts prevail in regard to silk, and other commodities which are of the first importance to our manufacturing interests.

This line will also bring nearer to us the fine island of Ceylon, with all its rich productions, commencing as it will at Madras, and taking in in its course Arcot, Bangaloor, Serar, Darwar, Mundapoor, Raybough, Muchandergar, Conoor, Sattara, Pandoo, Poonendar, Poonah, Junnere, Badlapoor, and through the Nunny Gant to Bombay; thus absorbing the interests and traffic of upwards of thirty first-rate cities, and from 400 to 500 towns, in the most densely populated part of India, facilitating the conveyance of cotton, coffee, tobacco, opium, sugar, silk, senna, gum, cassia, dye-woods, hides, furs, lac, betel-nut, saltpetre, spices, firewood, charcoal, coal, corn, and various kinds of grain, indigo, &c., &c., and the imports of treasure, manufactured and other goods, salt, ice, &c.

We must, however, defer to a future occasion any remarks of our own. We have received assurance from the promoters that they are determined to act with energy, and to evince their anxiety to carry out the plans they have devised.

THE GAUGE COMMISSION.

THE commissioners appointed in July last "to inquire whether, in future private Acts of Parliament for the construction of railways, provision ought to be made for securing an uniform gauge, and whether it would be expedient and practicable to take measures to bring the railways already constructed, or in progress of construction, in Great Britain, into uniformity of gauge, and to inquire whether any other mode could be adopted of obviating or mitigating the evil apprehended as likely to arise from the break that will occur in railway communications from the want of an uniform gauge," have at length made their report, which has been presented to both Houses of Parliament, by command of her Majesty. This document is one of considerable length, and the result to which it leads is to give the following solutions to the three important questions submitted to the consideration of the commissioners:—

- 1st. That "in all public railways now under construction, or hereafter to be constructed, in Great Britain," a uniform gauge should be adopted.
- 2dly. That it would be "expedient" (but whether and how "practicable" they do not exactly state) that all railways already constructed, or constructing, should be in uniformity of gauge; and,
- 3dly. That there are no adequate means of obviating the evil resulting from a break of gauge. The Commissioners, in addition, give it as their opinion, that the uniform gauge to be adopted should be that of 4 feet 8½ inches, or what is known as the narrow gauge.

Though we do not wish to stand forward as the partizans of either gauge, we must confess that we are disappointed at the result of the Commission's labours. We cannot add that we are much surprised at it. Commissions are useful things occasionally in collecting materials for legislation, which they do with an authority and power which private individuals can never possess. The facts they collect, therefore, are most valuable, and may often be referred to as the only authentic data upon which to form one's views of any given subject. But when we come to their opinions, the case is often very different. Loaded with facts, their judgments clogged with prejudices imbibed insensibly in intercourse with those from whom their facts have been derived, and who are always more or less interested parties—with an inherent respect for vested interests, and the "let well alone" principle, they too generally side with the stronger party, and discourage rather than promote the march of improvement. How far this was the case with the Irish Railway Commissioners we recently exposed, when examining their famous report, the simple effect of which document, if implicitly believed and implicitly followed, would have been to have put an extinguisher upon the mere notion of laying down a mile of rails throughout the length and breadth of that country. Thanks to the enterprise of individuals, however, the disheartening views of these commissioners were disregarded; railways have been erected in Ireland which, young as

they are, and limited in extent, are not only producing the most beneficial results to the public, but returning to the shareholders dividends to the amount of two and threefold the utmost profit contemplated as possible by the commissioners. These gentlemen arrived at the conclusions they did through various causes, all fatal to progress and enterprise, as—a prejudice inherent in some people against novelty—excessive caution, which would always err on the safe side—and, finally, a respect for vested interests, that is, the vested interests of individuals, disregarding the higher rights of the community at large, before which all individual interests should always give way. It was upon this narrow principle that they calmly told the public that a railway to the west out of Dublin, with a terminus at Galway, was quite unnecessary, and would be a ruinous failure,—unnecessary, because there already existed two canals going half-way towards that terminus, and a failure, because these canals had always been failures. The answer to these illogical positions was triumphantly given before the Galway Committee last year—and that, amongst others, by Sir T. Burgoyne, the chairman of the very commission which had so reported seven years ago.

So with the Gauge Commission of 1845;—a commission called upon to investigate one of the most curious and important—abstractedly one of the most interesting—and, in its practical bearings, one of the most important questions which it was possible to propound, touching the commercial and social advancement of the country.—How little has their report added to the stock of information bearing upon the scientific parts of the subject, and how little do its recommendations tend to the encouragement of the ruling genius of the age, namely, that of progress. The commissioners recommend precisely what any old woman would have recommended six months ago if she had been asked the question. They recommend uniformity because variety is inconvenient, and they will not attempt to devise a remedy to remove or mitigate this inconvenience. They recommend the narrow gauge in preference to the broad, simply, and in truth as we can see, because there is more of it in existence, and it will be easier to make 274 miles of broad gauge succumb to 1901 miles of narrow gauge, than to assimilate the 1901 miles of narrow to the 274 of broad. But how would it have been if the figures had been different? Suppose this commission had sat ten years ago, for instance, when the miles of narrow and broad gauge sanctioned were not so disproportionate; or suppose, now, that they were equal, or nearly equal, or that the broad preponderated over the narrow. Suppose this—for this, we maintain, is the fair way to view the question, both in the abstract as a matter of mere engineering science, and practically as a question of economy, (considering that the amount of railways yet to be constructed in Great Britain will eventually exceed that already constructed, both narrow and broad.)—and if the case had been so circumstanced—had the vested interests of the broad equalled or exceeded those of the narrow gauge, we ask, would the commissioners not have reported in its favour, as they have now done in favour of the narrow? We almost think they would.

The commissioners concede—not very willingly nor heartily 'tis true—that, whilst in all that concerns the safety and accommodation of the passengers, “no decided preference is due to either gauge,” that, “on

the broad gauge the motion is generally more easy at high velocities;" they admit also, that in respect of speed and power, as regards heavy loads, "the advantages are with the broad gauge." On the other hand, they think a limit should be put to the speed at which we should travel, and that immense loads are not to be expected nor desired. In short, they adopt the wretched old "finality" principle, and by their report would put a signal damper upon the ambitious spirits of naughty, headstrong engineers like Mr. Brunel, who swears he will travel to Bristol in an hour. "A hundred and twenty miles an hour? Oh, how very dangerous!" we think we hear the commissioners exclaim. But we happen to recollect the time when the notion of going twenty miles an hour was gravely denounced by a sage writer in a certain Quarterly as an absurd vision; and we actually know an old lady who never travelled in a railway carriage at all, and never will—nay, more, would never look at one, because "she knows its very dangerous, and that they will all be killed one day."

There are points connected with the question of excessive speed, which, stated by the commissioners, and we dare say, correctly, seem to us to tell rather against the finality doctrine, and are deserving of cool attention. The commissioners, after stating the fact of the greater speed attained by the express trains on the Great Western than on the London and Birmingham, admit this remarkable fact, that "whilst the Great Western Company have not altered in any degree the plan of their engines, the higher velocities of the narrow gauge lines have been attained by the introduction of a more powerful kind of engine than was employed at an earlier period; and probably the new engines now used on the narrow gauge line *are as powerful as they can well be made within the limits of their gauge, whereas the broad gauge lines have still a means of obtaining an increase in power of their engines, and of increasing their speed.*" In short, the narrow engines have reached their limit of possible tractive power, the broad have not; and when we consider that the increased tractive power is not attended with a proportionate increase of the dead weight of engine and tender, or of the expense of working, the fact appears to us to be a very striking one in favour of the superior availability of the broad engine for large and increasing traffic.

But how this extreme power of the narrow gauge has been obtained is also explained in the report; (and how it has worked, some recent serious accidents on the narrow gauge lines have fearfully exemplified):—

"Amongst other changes for increasing the power of the engine and the speed of the trains of the narrow gauge lines, there have been the giving an increased length to the engine, and the placing the cylinder on the outside of the framing; but it is the opinion of some of the witnesses we have examined, that this position of the cylinder has a tendency to produce a greater wear and tear of the journals, and a consequent rocking and irregular motion of the engine on the line. This, however, while the engine is of medium length, has been denied by Mr. Locke, who has great experience in the working of outside-cylinder engines. But it is stated by Mr. Gray and Mr. Gooch, that where the length of the engine is greatly increased, this increased length, by causing the extremities of the engine to overhang very considerably the fore and hind axles, has a great tendency to increase the irregular motion produced by the outside cylinder."

So far, every thing is decidedly in favour of the broad gauge. What follows seems to put the two gauges somewhat upon a par in regard to another element in the question of increased speed. The commissioners, in continuation of a passage which we have already quoted, say,—
"Whereas the broad gauge lines have still a means of obtaining an increase in the power of their engines, and of increasing their speed, provided the road be in a condition to sustain the great increased force which must result from any increased weight of the engine moving at such high velocities;" and then they go on to observe:—

"Whether the permanent way is in such a state at present is very questionable, or even whether it be possible in all vicissitudes of weather to maintain it in such a condition. We ought not to lose sight of the fact, that since the introduction of express trains, the accidents arising from engines running off the line have been much more common than in former years; indeed, these accidents have been more numerous within the last seven months, than within the preceding five years, and it is questionable whether this contest for speed ought to be carried to any greater length. We are, indeed, strongly inclined to the opinion stated by several engineers in their evidence, that it is the stability of the road, and not the power of the engine, that will prescribe the limits of safe speed.

"On the first introduction of passenger railways, speeds of about 12 miles per hour only were anticipated; the rails then employed weighed only 35 lbs. per yard, and the engines about six or seven tons. As soon as speeds of 20 and 24 miles per hour were attempted, it was found necessary to have rails of 50 lbs. per yard, and engines weighing ten and twelve tons. Since that time the rails have been increased in weight progressively to 65, 75, and 85 lbs. per yard, and the weight of the engine on the broad gauge exceeds 22 tons, and on the narrow gauge it now approaches 20 tons; indeed we have seen a narrow gauge engine on six wheels weighing 30 tons. We doubt, however, whether a corresponding stability has been attained in the road itself."

These facts are curious, and merit consideration. They suggest to the mind the question, whether, in any respect, railways and railway travelling have as yet attained maturity or any thing like it. It seems a strange thing to be told that we must not travel faster than a certain rate upon railways, because the road as constructed will not bear the wear and tear. The rejoinder is prompt,—Let them improve and strengthen their permanent way. All the great first charges of purchasing land, of engineering, including tunnelling, embanking, bridging, and so forth, having been incurred, the improvement of the structure of the permanent way might be effected, not without considerable expense certainly, but at an expense which the various companies, out of their 8 and 10 per cent. dividends, might well afford to pay. And how would we set about improving such permanent way? Amongst other matters, does it not appear obvious that an increased breadth of foundation would be an important element? In effect, for stability of permanent way, we believe the Great Western, from this circumstance amongst others, is admitted to claim precedence. The trains run easier at high velocities, as is admitted by the commissioners, from this very circumstance.

To sum up this part of the question in few words:—the commissioners fairly tell us that the narrow gauge lines have already attained their highest attainable rates of speed, ranging from 30·75 to 43·7 miles per hour; whilst the broad gauge, having attained a speed ranging

from 34·5 to 43·2 miles per hour, has yet, as far as the application of motive power goes, the means of attaining still higher velocities. The question then is,—Shall the public be limited to the present narrow gauge velocities, or would it not be desirable to have at least the option, on occasions, of increasing them? For our part we reply unhesitatingly in the affirmative. What is the inducement to half the branch and connecting lines daily coming before parliament? Not the obtaining a means of railway transit to certain places—but diminishing the distances by which they are already to be reached. The saving of time is the great object of the railway principle, and in long distances is of vital importance, making all the difference between having two posts or one in the day, or a return post in 24 or 36 hours. The difference between a 30 and 40 mile speed between London and Edinburgh, for instance, would effect the difference of three hours in the journey—of six hours in the journey there and back; which, at the higher rate, would be within a day's work. But surely it is unnecessary at this time to enlarge upon the importance of the saving of time in a country like this, where time is essentially money or money's worth. The commissioners speak of the small number of persons, comparatively, who avail themselves of the express trains. But they forget that in most cases these are men of business, upon whose mission depends the business and fortunes of many others,—they forget, also, the commissions of importance which are effected by means of a simple parcel by these trains. But we say again, the question is whether we are to be restricted for ever to the utmost present speed of the narrow gauge lines? Upon the narrow gauge lines we are told we must, because their engines can go at no higher power. On the broad we may yet go much faster, and with safety, regard being had to the stability of the permanent way. With these admissions before them, we say that the public have a right to demand that, upon our great trunk lines, the permanent way should be brought up to the required point of stability, to allow of speed beyond that of the Great Western; and that Great Western, and Birmingham, and Midland, and all alike should be called upon to make what outlay might be necessary for the attainment of this object. If we stop where we are, we shall in a few years be behind the world; and with the proud fact on record of our having been the first in the field of railway enterprise, shall have to endure the mortifying reflection of having been left behind in the march of improvement.

Then comes the question of economy, and upon this point the commissioners are very elaborate in figures, the result of which would tend to show that the broad gauge is very much more expensive in working than the narrow, in general traffic. It would be impossible for us, with the means at our disposal which this report affords, to enter very minutely into calculations of this description. It is perfectly true that the traffic on the London and Birmingham line greatly exceeds that on the Great Western, upon some of the branches of which the loads are extremely light.

"In reference to the branches already in connexion with the Great Western Railway," say the gauge commissioners, "we may observe, that the greatest average train on the Oxford branch, for two weeks in July and October, was only 48 tons; on the Cheltenham branch, it did not exceed 46; between

Bristol and Exeter, 53; and between Swindon and Bristol it was under 60 tons."

And upon this showing the commissioners may, *prima facie*, appear justified as far as these branches are concerned, in holding that, "with such a limited traffic the power of the broad gauge engine seems beyond the requirements of these districts."

But then, on the other hand, it should be borne in mind that the Great Western is as yet, with all its branches, an incomplete scheme. It has no terminus of importance, except that in the metropolis. Extended to Falmouth, however, and to Portbury, the legitimate port of Bristol, the former opening out to the Atlantic trade, the latter to intercourse with Ireland; extended moreover in the northern districts, through Birmingham, we might fairly anticipate that the traffic of the Great Western, with its various ramifications, would be at least equal to that on the London and Birmingham. And if this were to prove the case, what would be the result on the question of economy as between gauge and gauge. The revenue of the Birmingham Railway from passenger traffic is 64 per cent. greater per mile than that of the Great Western. Increase the Great Western traffic in this proportion, and the increase would be nearly all clear gain, the locomotive charges not being subject to increase in any considerable proportion. Granting this, what would be the effect on the general financial position? The dividend would be increased by at least, say 35 to 50 per cent. Yet, without all this;—with its acknowledged incompleteness as regards important termini and ramifications, with the natural consequence of reduced passenger loads, it is a remarkable fact that the Great Western pays a dividend only one-fifth less than the London and Birmingham. Its passenger traffic is 64 per cent. less; its locomotive charges, (apparently, for we think when thoroughly investigated the fact will be found to be otherwise,) apparently ten or twelve per cent. higher, yet it still pays a dividend of 8 per cent., the London and Birmingham paying 10 per cent. True, it may be said that the London and Birmingham capital is greater in proportion to its mileage than the Great Western; but taking even this into consideration, and giving the increase of 64 per cent. on passenger receipts to the latter, can it be doubted that the result would be remarkably in favour of the broad gauge?

But take the matter in calculation under ascertained figures. The Great Western traffic is 64 per cent. less than the London and Birmingham. The locomotive expenses to be deducted from the receipts are, say 12 per cent. greater than on the London and Birmingham. It must be obvious that in increasing the traffic to that of the London and Birmingham, the relative excess of 12 per cent. in the locomotive charges would not continue; in all probability, seeing that at present the complaint is the employment of an excess of locomotive power, the increase of traffic might be done with a very trifling actual addition of expense in this particular, whilst on the Birmingham line the same rate would still continue. At any rate, we think we do not go too far in suggesting, that if the traffic on the Great Western were 64 per cent. more than it is, the cost of locomotive power would not bear a greater proportion to the receipts than they do on the London and Birmingham.

There are two other branches of the commissioners' inquiry which we will not enter upon at any length, namely, the inconvenience of the break of gauge, and the various schemes proposed to mitigate this evil. We will merely observe that, in regard to the former point, the commissioners have made the most of it, and in regard to the latter, have treated the subject as cavalierly and disparagingly as possible. We are not unmindful of the inconvenience of delay and changing carriages at stations; but experience has proved to us, at Birmingham, Rugby, and elsewhere, that those annoyances are quite possible without a break of gauge, where there is not a good feeling between the directors of the meeting lines. After all, the delay at a station required to change from one carriage to another need not be more than eight or ten minutes, the time now allowed at the refreshment stations; and as to the loss of luggage, &c., that we consider a groundless alarm. With regard to the risk of want of carriages on a great trunk line, with conveying branches of different gauges, that is an inconvenience which might be provided against simply by the adoption of the electric telegraph, which would warn the authorities at the station of the demand quite in time to provide for it.

Finally, and to conclude.—Whatever the validity of the views and recommendations of the commissioners, how are they to be carried into effect? Are we to compel the Great Western to alter its gauge, at an expense of a million of money, estimated, to say nothing of the loss and inconvenience during the process of the work; or is the public to pay for abolishing the sole vestige of a gauge, which has not yet had fair play, and which, when fairly in operation, with adequate termini, we consider would prove the most economical, as the commissioners admit it is now the speediest, and the easiest at speed? In either case the company will have good ground to complain, that a great enterprize upon which they embarked many years ago, with a full knowledge of what would be required for its perfect accomplishment, should be sacrificed without a trial; that it should be cut off from the natural resources to which it had looked forward, and be condemned untried to abrupt disappointment and discomfiture.

The government, it appears, have not yet made up their minds on the subject. On Friday, the 20th of February, in answer to Mr. Gisborne, Sir G. Clerk said that "he was not prepared to state at present whether her Majesty's Government intended to introduce any proposition founded upon the report of the gauge commissioners." And on Tuesday, the 24th, the subject was mentioned in the House of Lords by Lord Kinnaird, when some interesting suggestions were thrown out. The noble lord said:—

"After having read their report, he was surprised to find a statement by them, that it was impossible for trains to run at the high velocities which had been lately adopted, with safety to the public. He hoped that the legislature would not think of limiting the speed by which persons might now travel. He regretted that the Commissioners had not considered the possibility of adopting a medium gauge of six feet. They seemed to think that it would be impossible to widen the narrow gauge on account of the tunnels; but he thought that this was quite a mistaken notion. His opinion was, that the whole two thousand miles of narrow gauge which were at present in existence in this country, might be altered without any considerable inconvenience, if it were necessary, or without such a great expense as

would put that experiment out of the question, and he thought that this was a peculiarly favourable time for effecting the alteration. Upon one or two lines, the rails had been altered without stopping the traffic, and on another, the gauge had already been altered. If it were necessary, in order to carry out the alterations to which he had alluded, money might be advanced for the purpose by Commissioners, and the railways could repay it by a tax for a certain number of years. He would in conclusion ask when the evidence on which the Commissioners founded their report would be laid on the table of the House, and he was also desirous to know when they might expect to be informed of the determination of the House on the subject?"

The Earl of Dalhousie, in his reply said, that

"The report of the Commission had been laid on the table of the House: it recommended the adoption of the 4 feet 8½ inch gauge as the most expedient, and they recommended that there should be an uniformity as far as it was possible. Those recommendations were of great importance, and they required to be most deliberately considered; and the government would seriously consider them, and the evidence upon which they were founded. The subject was one of grave importance, and one the decision of which would affect a great amount and variety of interests. It was unnecessary for him to remark, that the report of the Commissioners would have no effect in law until it had received the sanction of an Act of Parliament, and the government felt that they could not recommend such a measure until they had carefully investigated and considered the evidence on which the decision was founded, and placed that evidence before the members of the Legislature, in order to put them in a position for coming to a correct conclusion [hear, hear]. It was the duty of the government to investigate the evidence before it brought forward any measure on the subject, and they would also take care that the report should be laid on the table as soon as possible. Under ordinary circumstances it would have been ready before this period; but in consequence of the great pressure of railway business some unavoidable delay took place in preparing the report of the evidence, but it would be laid on the table at the earliest possible period, which would be in two or three weeks. As soon as the government had satisfied themselves as to the evidence, they would be ready, on their own responsibility, to bring forward a measure on the subject [hear, hear]."

The subject is one of such paramount importance, both to the public and to individuals, that we look anxiously to the determination of the Government and Parliament in regard to it.

FOREIGN RAILWAYS.

Belgian Railways.—Anglo-Belgian.—Grand Junction.—Bossuyt Branch to Courtrai.—Namur and Liège.—Report on the Cumplich Tunnel.—Receipts on the State Lines of Belgium.—Great Northern of France.—Central of Spain.—Venice and Vicenza.

THE chief glory of the British Constitution, (we think the best going,) or at any rate what is cited as such by our own and foreign writers, is the Commons' House of Parliament. It has, indeed, been of some use since it was first instituted, and it still remains, if we err not, what may be paradoxically termed *an useful delusion*. Yet like all human institutions it has its faults and imperfections, and the dreadful infirmity of loquacity, so constantly exhibited within its walls, is certainly one of them. Liberty of speech is, to be sure, marvellously dear to an Englishman—and woman—and the honest, conscientious constituents always despise a representative who "only votes," whichever way it may be. But though we can readily admit that freedom of debate is a very proper thing, and one of the best means of letting the country know what compound of blessings, in the shape of *repeals* or enactments, the people may expect will be concocted in the legislative crucible, or what mischief either the government or the opposition may be hatching, we cannot help expressing our indignation at the circumstance that these honourable, gallant, and learned gentlemen, or unlearned gentlemen, do not contrive to pour out their pent-up souls with greater brevity. Will they never profit by their classics, (those that have any,) and imitate the terse Roman historian? We fear not; for they have such a provoking flow of language as well as feeling, that we are driven deeply to regret there is no standing order obliging them to talk, like Grimm's abbé, by inch of candle, and no more. If some of the redundant exordiums and perorations of these modern senators were curtailed of their fair proportions on this principle, the country would, we think, have a better chance of benefiting by their collective wisdom; and business, the all-absorbing object of this sordid and unpleasantly busy age, would proceed far more to the satisfaction of those who are engaged in it than it now does. Flowers of rhetoric, or six-column speeches of dull reasons and recapitulations of all our remediless miseries, past, present, and to come, are poor compensation for the anxiety and suspense of the delay occasioned to private bills. But no such revolution can be hoped for; short parliaments may come, short speeches never!—human vanity forbids it.

Pity it is, too, that our neighbours across the water have caught the infection, and, instead of discussing their railway projects and their commerce, have in this respect been following our example; the Belgian Chambers were actually occupied during fourteen days of last month in debating upon the *game laws*. Yes! fourteen days were they deliberating whether tom-tits were to be considered game or not, or whether larks and sparrows should be taken either with springes or birdlime! The prime minister, too, once of the revo-

lutionary party, lent his assistance in support of the tyranny of preserves, quoting Tacitus in favour of the bill and the partridges, and gravely informed the Chamber that he would consider the subject *sine ira et studio*. Who knows but, in his retirement, dim visions of a revival of the forest laws may float before him? Little, therefore, transpired in the Belgian Chambers last month relating to the several lines of railway conceded to English companies, information upon which we have been anxiously expecting.

From the *on dits* we have heard, we think it not improbable that two or three of these companies, finding it difficult to raise their capital in these hardest of all hard times, will endeavour to enter into arrangements with the government for withdrawing themselves from the engagements they have entered into. In doing this they will have a difficult task to perform, and we fear will scarcely succeed in getting out of the clutches of the Belgian lion without leaving a considerable portion of, if not all, their caution money behind them. Amongst the panic-struck lines so circumstanced, the following are laid low, in fact interred to rise no more, even on the atmospheric principle.

The Adinkerke Pier and Ghent Railway is one of the deceased, also that from Calais to Bruges, neither of which ever had a chance of success, unless indeed in the minds of the directors, of whose sincerity and honesty we have not the slightest doubt, but of whose judgment we certainly have some.

The Anglo-Belgian, too, though not defunct, is said to be sadly indisposed, and has shown this by going to law with the government; partly, we believe, upon the grounds that the estimates of traffic and the cost of the line, which were made by the government engineers, have been declared by Mr. Stephenson to be grossly exaggerated.

There are also, we apprehend, one or two others in a crippled state, principally because their calls have not been taken any notice of; but we forbear to name them, as our information, though certainly partially true, may not be wholly so. We have such implicit confidence in those gentlemen who direct their management, that we should regret throwing a single piece of orange peel in their already somewhat slippery path; but, if we mistake not, they will find the government rather difficult to deal with in these matters; the Belgians are fond of telling Englishmen that they were *done* in the purchase of the *British Queen*, and there can be little doubt, if the opportunity occurs, they will return the compliment.

While these conceded lines are in jeopardy, and uncertainty prevails whether they will or will not ever be constructed, those that are actually in progress will scarcely be in high favour; and, though it is impossible to speak positively, there appears to us very little chance of the Belgian lines recovering their position in public estimation until parts of them at least are actually opened. We believe that capital is not wanting for good and sound schemes, indeed, who can believe it is, after reading Charles Dupin on the resources of England? we have plenty, not only for the construction of our own, but also of foreign lines. The mania, however, has been great; for this country, like all other great countries, has its periods of insanity; there are periods of financial as well as political madness, and we conceive that four months ago the nation was as rabid

as any unfortunate creature who calls Bedlam his home. But the re-accion must come, and with it a healthier state of things.

In Belgium the initiative has been already taken; the Eastern Belgian, a line from Landen to Manage, is announced as likely to pass the Chambers this session; the line from Courtrai to Bossuyt will certainly be granted to the West Flanders Company, and the *Chemin de Fer Belge*, of the 1st of last month, has a leading article in which it informs its readers that the Grand Junction line is, in diplomatic parlance, *un fait accompli*; and certainly though we have, on a previous occasion, compared it to a gridiron, we feel sure that we shall fry and fly on it at some future period with great pleasure. The tracing of this railway shows three principal lines.

The first, from Tirlemont to Gilly, near Charleroi, has a branch from Ligny—Blucher's Ligny—to Gosselies.

The second is from Tirlemont to Huy, on the Namur and Liège line.

The third from Landen to Namur.

The line from Tirlemont to Gilly will traverse thirty-one communes, passing by Hongaerde, Jodoigne, Gembloux, Sombreffe, and Ligny, joining Gilly near the village of Sartallet; a curve will unite this line to the state railway at Chatelineau, and another branch leaving Ligny will debouch at Gosselies, passing by Waregnies, Hoppigny, Ransart, and Jumet.

The line from Tirlemont to Huy will leave the preceding one at Jodoigne, and passing through twenty-five communes, will debouch at the suburb of Huy by the valley of the Meuse.

Lastly, the line from Landen to Namur will traverse thirty-four communes, and will join that town at the railway station of the state line. The country through which these several lines pass is rich both in minerals and agriculture.

NAMUR AND LIÈGE.

In the Belgian Chambers of the 27th January, Mons. Lesoinne brought forward his motion relative to the tracing of this line, and observed that this railway was considered of such importance by Mons. Rogier, a member of the Chamber, that that gentleman proposed that the line should be made and worked by the government. It appears from the explanations given by Mons. Lesoinne, that, in the commencement, the plans which had been submitted for this railway showed that the line from Namur to Chokier followed the left bank of the Meuse, where it crossed the river, and thus accommodated all the factories and establishments on both sides of the Meuse between Chokier and Liège.

This plan was approved by every one, for it served every interest. Nevertheless some objections, isolated, but in a high quarter, were taken to the tracing between Huy and Chokier. Petitions from the inhabitants on both sides of the river were presented, those from the right being from private individuals who had houses there, while those from the left were forwarded by the manufacturers and artisans. The Chambers, however, voted for the project, viz. for the left bank. But it seems, at least it is so reported, that the question is again to be discussed, and that the government purpose to thwart the company to whom this line has been conceded, in case they persist in making their railway on the

left bank. The object, remarks Mons. Lesoinne, in bringing forward this motion is, first, that no matter what the company may propose doing, a commission should be named which shall represent all the interests concerned; "for I am desirous of calling attention to the fact, that, on the left bank of the Meuse, there are in three leagues a manufacturing population of 23,000 inhabitants, and I think it my duty to show the proprietors holding shares in this line, who are foreigners, and have brought their capital amongst us, the great injury that it will cause them if the line is brought upon the right bank. Finally, I have made my motion that it may be clearly understood, that if the company persist, against its own interests, in making the road on the right bank, no considerations should prevent the making of another line on the left, either by the government or another company; nor could anything prevent this line from Huy to Chokier, according to the concession, having the right of a free passage on the Namur and Liège."

The minister, in his reply, stated that up to that time he had only received the "projet définitif" between Liège and Seraing, and Huy and Namur, and that the tracing between Huy and Chokier had yet to be submitted, and, therefore, he had not been able to ascertain whether the line ought to pass along the right or the left bank of the Meuse. He denied that the company had been intimidated; the company would make its propositions, the neighbourhood interested would make their representations, and the government would then decide between them.

The most important information, however, that we can offer to our readers on the subject of Belgian railways, is an abridgment of the report made by Mons. Delfosse, of the commission of inquiry upon the subject of the Cumpitch tunnel, which, he remarked, had been adopted unanimously. The report, which was read to the Chambers on the 29th of January, is very long, and the resolutions resulting from the evidence brought before the commission are not calculated to lead to a very high estimate either of the sagacity or purity of character of Belgian engineers and contractors. The tunnel in question, which is on the railway between Malines and Antwerp, and is 928 yards in length, was put up to public competition on the 27th January, 1836, in the presence of Mons. de Ridder, Government Engineer in Chief of the Second Class, when three tenders were made;—the first offered to construct it, including the two entrances, for 638,250 francs; the second, 626,050 francs, and the third, made by Mons. Borguet, for 511,500 francs. This gentleman's tender was accepted. The designs were executed by Messrs. Simon and De Ridder, who, before adopting them, consulted Mr. Stephenson, from whom, it is stated in the report, they received valuable documents. It does not, however, appear that they followed the instructions of their English colleague; on the contrary, it seems they finished where he desired them to commence, and vice versâ. Two or three years had scarcely elapsed from the completion of this Cumpitch tunnel, than the necessity for a second became apparent, and in December, 1841, a project was accordingly presented to the Council of Ponts et Chaussées—a modified project was likewise presented by Mons. Masui, with explanations showing the reasons why he wished this second tunnel to be larger than the first; the principal one being that it would sooner let the smoke out. This project of Mons. Masui's was submitted to the Council of Engineers on the 3rd of January, 1842, and on the

18th of the same month, Mons. Vifquain, now President of the Council, made his report upon it.

It was determined that this second tunnel should be made parallel to the first, and should be worked out, as an experiment, to the extent of one hundred yards, which proposition was adopted by the government; private tenders were accepted for the works, and on the 22nd July, 1842, they were commenced. On the 1st of May, 1843, this second tunnel had attained a length of 123 yards, and the works from this period to June, 1844, continued to proceed without anything occurring worthy of remark. In this month, however, rumours of a most alarming nature began to circulate, and amongst them that the first tunnel was likely to fall in, and that passengers by the trains ran great risk of being crushed to death. At length a Tirlemont paper took up these rumours, and they reached the ears of Mons. De-champs, the Minister of Public Works, who appointed Messrs. Cabry and Delahaye, (the former an Englishman,) the Engineers in Chief of the Locomotive Department, to go to the spot and make a report of its condition. This was drawn up on the 6th of June, and in it these functionaries stated, that the fears which had been entertained were quite chimerical, and that there was not the slightest danger to be apprehended; the newspaper of Tirlemont was obliged to retract, science being more powerful than well-founded rumour, and though provided with a hundred tongues they were obliged to be silent before two. Nevertheless, on the 4th of September, symptoms undeniable of bad construction manifested themselves in the first tunnel; three wells gave way, and were obliged to be closed, and other signs of instability showed themselves in the brickwork a month later, particularly on the 16th of December; and finally, on the 21st of January, 1845, the two tunnels, the second of which had cost 400,000 francs, fell in with a tremendous crash.

This disaster created considerable alarm in Belgium, for it was feared that other works of a similar nature might have been as badly constructed. Most happily no lives were lost; but had a train been passing, and the occurrence taken place in the summer, when they are long, the loss of human life would have been great indeed. When the tunnels fell in, a commission was appointed to report upon the accident, but not from the Ponts et Chaussées, as that body, having given their sanction to the plans, would have been both judge and jury. Recourse was therefore had to the Chambers, and the commission was chosen from its members.

We have not space to give any extracts of the evidence brought before this commission, but it would appear by their report that these gentlemen, themselves Belgians, have no very exalted opinion of the acquirements of their own engineers. They state that their reports show that they were incompetent; that they were often in doubt and uncertainty; that the estimates of Mons. de Ridder were most erroneous, inasmuch as the first tunnel, which was to have cost 511,500 francs, was not executed for less than 734,678; and also, that in spite of Mr. Stephenson's advice to the contrary, the Ponts et Chaussées permitted the trains to run while the second tunnel was in course of construction.

The charges brought against the contractors are not less serious; the lime is described as bad, and the mortar badly made, not having

a sufficient quantity of cement mixed with it. These instances suffice to show not only the defective nature of the plans, but the want of principle in those who undertook to execute them. The military engineers close their report, drawn up under the superintendence of the commission, by stating, that the falling in of these two tunnels originated in the two following causes :—

1. The imperfect and bad manner in which the first was constructed, whether in regard to the principles of art, or to the execution of the plan,

2. The extremely imprudent plan adopted of joining a second tunnel to the first, a resolution which it is impossible to justify, and which in the end was the essential cause, if not the proximate cause of the accident.

The commission conclude their report by stating, that they have done their duty without favour or affection, and they are of opinion,

1. That frauds have been committed in executing the works of the first tunnel, and that these frauds are imputed by them to engineer-in-chief De Ridder, the contractor Borguet, and engineer Steevens.

2. That the Council of the Ponts et Chaussées have not shown in their examination of the project for the second tunnel that degree of attention and intelligence which was to be expected from a corps invested with such high authority.

3. That the construction of the second tunnel so close to the first was most imprudent.

4. That this imprudence has been aggravated by the construction of arches for a great distance, without any other support than that of a soil unfit for such a purpose ; and by the continued passage of the trains during the construction.

“This last fact,” observes the commission, “appears inexcusable ; indeed it is scarcely possible to conceive how the trains could be allowed to continue running through a tunnel in which wells had fallen in, and the brickwork given way, facts admitted by Monsieur Masui, the engineer, who admitted also that the tunnel was in a very precarious state. So that, although the danger was well known, and though it was ascertained that the brickwork at the foot had fallen in for twenty yards, no measures were taken for the public security. The circumstances were reported to the director of the railway department, Monsieur Masui, and he allowed things to go on as if nothing was the matter. One shudders to think what the consequences might have been.”

The result of this report was, that Messieurs de Ridder and Borguet were arrested and placed in confinement in the prison of the Petit Carmes, on the 7th of February ; their papers were seized, and judicial proceedings instituted against them.

It is really astonishing, when the frightful results of railway accidents are considered, that even the grossest selfishness and cupidity could induce any engineer or contractor to be dishonest in the execution of a tunnel or a viaduct ; it might be supposed that bare humanity would limit the indulgence of their speculation to any other part of the lines. Of all works which it is the province of the engineer to execute, the most difficult, the most dangerous, and above all, that which requires the greatest scientific acquirement and experience, is the carrying of a tunnel through an unfavourable soil. On this account, though we have a high sense of admiration for the engineering talents of the Romans, we certainly consider them inferior to the moderns in this department of

the art, for the tunnels of the ancients were all of them executed through ground which did not require the support of masonry. To bore a hole straight through a chalk hill is easy enough, but to do the same through a wet and shifting soil, and take care that it does not come down Cumpitch fashion afterwards, is "a horse of quite another colour." We think, if the Belgian Council of Ponts et Chaussées had visited a few of our Cornish tunnels, and heard the ocean rolling over their heads, and if they had gained a little experience in the Box, Saltwood, and Bletchingly tunnels, they would never have sanctioned the designs for those at Cumpitch, or have persisted in their blunders after the first was executed. We heartily hope Monsieur de Ridder will clear himself, at least from the charges of peculation and collusion with the contractor; if he cannot do that, we think he deserves to be bricked up in one of his own tunnels—should any remain standing.

On the 31st the Chamber received the report of the government engineers upon the tunnel of Braine-le-Comte, which cost 1,008,000 francs, and of the stability of which fears were entertained. This report is, on the whole, favourable, but the Minister of Public Works proposes to open a second line by a cutting which will not be executed for less than 400,000 francs. No wonder that, with such *faux pas* to answer for, these lines only pay $4\frac{1}{2}$ per cent.; were they properly constructed and well worked we should be now, as we always have been, of opinion that the Belgian lines would produce a large dividend, particularly those like the railways in West Flanders, where there are no works of art to construct, and the expenses will in consequence be comparatively small.

The following is a statement of the receipts, number of passengers, and amount of goods carried on the state lines of Belgium during the month of November, 1845:—

		Francs.
Passengers	255,389	produced 433,023
Luggage (kilog)	690,011	„ 25,168
Goods by passenger trains	3,933,930	} „ 88,830
— (parcels)	20,374	
— goods' trains (kilog)	54,791,800	„ 309,967
Cattle (heads)	2,863	„ 5,572
Carriages	215	„ 11,778
Specie, paper, &c. . . . .	.	„ 61,382
		<hr/> 935,721

The receipts from passengers of the first class amounted to 103,159 francs; from the second class, 146,303; and from the third class, 180,269.

The under-mentioned towns furnished each the following sums:—

	Francs.		Francs.
Brussels	159,060	Namur	40,819
Antwerp	126,184	Charleroi	38,625
Liège	87,784	Louvain	33,636
Ghent	60,076	Braine-le-Comte	33,526
Herbersthal	41,567	Mons	26,183

These returns show an increase of $12\frac{1}{2}$ per cent. upon those of the previous month in the same year.

GREAT NORTH OF FRANCE.

The delays which have taken place in opening this line for traffic continue, and, though announced weekly in the French papers, it has been as often put off to a more convenient time, we almost fear till the spring, which means any time between April and June. These delays are, we believe, on no account to be attributed to the Directors, but to the Government, or rather to the unfinished state of the works, which they cannot yet deliver over to the Company, and are carried on very slowly indeed.

The first section, from Paris to Pontoise, was to have been opened at the close of the month, and the second, from Pontoise to Amiens, in May next; but as there are yet the second line of rails to be put down, and stations, &c., erected, we do not expect to see this statement realized. When the line is open throughout, (and the section from Amiens to Lille will, it is said, be given over to the Company in June,) the traffic by canal will very nearly cease in this part of France. At a late visit paid to Valenciennes by one of the Directors, it was stated as the intention of the Company to put the conveyance of goods department upon the very best and most liberal footing, and six centimes a mile per ton was named as the price at which merchandize would be carried. If this were so, a ton of heavy goods would be transported from Valenciennes or Denain to Paris for sixteen francs at the outside, only one or two francs dearer than the freight by water carriage, and this would be a good set off against the delays attending that mode of conveyance, (more particularly in the winter,) the chicanery of the boatmen, and not unfrequently, the deterioration that many articles suffer from the want of proper care.

On the basis of this price the Company propose to bring the coals of Valenciennes and Mons to Paris by means of six-wheeled engines, coupled, and of 14-inch cylinders, which will make up in power what they lose in speed. These being attached to a great number of waggons, will run independently of the passenger trains, and at different hours; and as the French railways have a double line of rails, the system will no doubt work well.

The Orleans and Tours Railway, the first section of the line to Bourdeaux, will be opened in the course of April next.

The Orleans to Vierzon is to be ready about the month of August; but the section of the Paris and Lyons between Dijon and Chalons, though finished this year, will not be opened till 1847, so the holders of this stock will have to wait a considerable time before they see a dividend. It appears the French Government have no very decided intentions of conceding direct lines; and it is rumoured in Paris, that, in all probability, the lines to Caen, Rennes, Limoges, and Clermont will be granted to the Rouen, Versailles, and Orleans Companies, from which lines they will form extensions. The Minister of Public Works is preparing the projects of law which will be submitted to the Chambers this session. These projects are in fact the concessions granted last year, but left in what is termed *l'état de rapport*, viz., the following lines, Bourdeaux to Cette, Mulhouse to Dijon, Paris to Rennes, and three new undertakings. One of these is connected with that to Caen, another forms an extension from the *ligne du centre* to Limoges and Clermont, and the third consists of a

railway from Vitry-le-Français to Gray, which last is to supersede a canal projected last year.

The receipts on the Versailles Railway, left bank, are much higher than those on the rival line; the difference in favour of the year 1845 over that of 1844 has been, on the right bank 31,060,075 francs, on the left 110,945,087 francs.

CENTRAL OF SPAIN.

A railway station at Talavera de la Reyna! Yes, indeed—from Madrid to Talavera. The survey is complete—has received the sanction of the Spanish Board of Public Works, and Englishmen are again to act on that renowned field. *Tempora mutantur!* Not a scene of ancient or modern story will remain undesecrated by rail and steam; but we must make the best of our only consolation and go to see them and this it appears, by the bright prospects of the company, we may hope soon to do. This line forms a junction with the Madrid and Aranjuez, which is already at a premium in Spain. The two either are, or will be, amalgamated—a very advantageous plan for the home shareholders. From Aranjuez the line runs on a level of forty-one miles to Toledo, a town not only important in all that interests the hearts of railway speculators, manufacturers, and population, but in attractions to the traveller for pleasure.

We rambled over Spain with Roberts and Mrs. Romer, and lately with Mr. Wells in his *Picturesque Antiquities of Spain*, a book not only beautifully illustrated with architectural subjects from his own pencil, but rife with clever and amusing descriptions of the country and its inhabitants; and certainly when we recollect the bad travelling, the bad inns, the bad roads, in fact the bad every thing connected with locomotion in Spain—to say nothing of the chances of an occasional rencontre with a garlicky cut-throat—we pray devoutly that our anticipations and information may prove correct as to the success of this undertaking;—that we may be off as soon as possible to the land of beautiful eyes and ankles, mantillas, chocolate, and castanets.

The resources of Estremadura are such as would have secured large returns to the company had the undertaking terminated at that point; but negotiations are in progress with the Company Obros Publicos of Portugal, which will be the source of great mutual advantages, and be the means of completing, in the same space of time, an entire line of communication from the banks of the Tagus to the capital of Spain. The Junction is a line of quite as much importance as the Seville and Merida, which we are assured will be carried out in the course of next spring, and will much improve the shares of the Central Line—the trunk of both the north and south of the Peninsula. From Badajoz to Truxillo the surveys are now made, and the interval between the Tagus and Guadiana is all that remains to be completed; upon this the engineers for the company are exerting themselves to the utmost, with a view to the commencement of the works on the 15th of the ensuing month.

VENICE AND VICENZA.

The railroad between these two cities, which passes over the magnificent bridge thrown across the Lagunes, and three other bridges over the

Tessino, the Bochiglieri, and Retrone, and through two tunnels near Vicenza, was opened on the 4th of February. The inauguration and departure of the first train took place at Venice, at ten in the morning of the 4th inst.; it traversed the arches over the Lagunes in eight minutes, a distance which is not accomplished in a gondola in less time than an hour. The whole journey to Vicenza was performed in a little less than two hours.

THE DUCHY OF NASSAU RAILWAYS.

THE number of new undertakings has been much limited within the last two or three months, nor have we had to record instances of fresh enterprise; one or two Indian and Continental lines have been brought forward. Amongst those most likely to be of real advantage, either to the public or to shareholders, are those to which we would wish to draw attention. Those who have drunk in health from the Brunnen, those who have wandered in the beautiful valley of the Lahn, will be pleased to learn what facilities are about to be offered to those who are in quest of health, of pleasure, whilst the man of business may congratulate himself upon the probability of carrying out a well-digested scheme which will place the North of Germany in immediate connexion with the whole of Europe. Of the recommendations which the undertaking holds forth, we shall give a brief survey.

STATISTICAL AND GEOGRAPHICAL GLANCE AT THE DUCHY OF NASSAU
RAILWAYS, GRANTED AS JUSTIFIED BY A CONVENTION, DATED 9TH
OF DECEMBER, 1845.

Geographical Situation—Commerce and Industry.—Production of the Duchy of Nassau.

The Duchy of Nassau is situated almost in the centre of Germany; it is bounded by the Rhine on the western side, and on the south by the Main; The river Sig flows in a parallel line on the northern limits, and the river Lahn divides it into equal parts from the eastward to the westward.

This advantageous position causes the whole commerce of Germany to transit through the internal roads or by the rivers surrounding this Duchy.

By the same reason it becomes the central point where all the German railways will have to be connected.

Mines of iron, lead, copper, lime, stone, slate, marble, and even silver are in full operation in the Duchy.

They find in the western district, almost on the surface of the soil, immense quantities of natural charcoal, likely produced by the volcanic eruptions, whose appearance are evident in the whole country.

There are also warm and cold mineral springs, the most renowned in Europe. The principal ones are Wiesbaden, Wiefbach, Scholwboch, Schlongenbad, Ems, Fachingen, Geilnau, Soden and Solters. The last yields by itself every year four millions of bottles of mineral water for exportation.

The course of the projected railway and lines with which it is connected:—

The projected railways form an almost perfect cross at Limburg as a centre; it is also the main point for the commerce, industry, and productions of the country.

The first section of that crosses straight from Wiesbaden, where two lines have been surveyed, one passing through Langenschwolbach, the others through Comberg.

The last one although a little longer is preferred.—1st, on account of an easier ground.—2nd, on account of its industrious population; we will for the present only speak of this one.

From Wiesbaden it retracts backwards on Erbenheim and Nardenstadt*. And from the latter place it runs directly to the north, to reach the commanding point of Niderhausen, where it enters into the valley leading through Idstein, Comberg, Erbach, Selters to Limburg.

The line is of about 59 English miles, and runs through a population of 61,324 inhabitants.

At the starting at Wiesbaden it is connected with the Taunus line, which latter corresponds,

1st. At Mentz, with the railway on the left bank of the Rhine, with those of the east of France, which are to join this last.

2nd. At Francfort, with the line passing Darmstadt and Heidelberg, which follows the right bank of the Rhine through the country of Baden until it reaches Switzerland.

3rd. At Francfort, with the line which, via Achaffenbourg and Nuremberg, will extend to the interior of Saxony, Bavaria and Austria.

4th. At Francfort, with the Hanau railway.

5th. At Francfort, with the line intended to cross the great Duchy of Hesse Darmstadt to the northward.

6th. The last with all the internal lines of the kingdom of Wurtemberg.

The second branch, forming the left section of the cross, follows to the westward of the valley of Lahn from Limburg, passing through Diez, Nassau, Ems, Nederlandstein, until it reaches Coblentz.

This branch, of about 30 English miles, runs through a population of 83,132 inhabitants.

Reaching Coblentz, it connects these with the projected line of the Moselle Valley, via Treves and Metz, to form the most direct line from Paris to the Lower Rhine, Coblentz, and afterwards to Berlin, and all the railways of northern Germany.

This line united to that of Wiesbaden will be the shortest road from Mentz and Francfort to Coblentz. It will be completed by the only grant of the Duke of Nassau, for supposing, against probability, the Prussian Government should refuse the junction to the Fort of Erenbreistein, they would have their station at Lauhstein, at the mouth of the Lahn, where from the transit might be made by steam-boats with more facility, and quicker than by crossing the floating bridge of the Rhine with omnibuses and other vehicles.

Nevertheless, Nederlandstein would always have an important station for the goods, for its port (one of the best of the Rhine) is already a general dépôt for the navigation of the river.

We will first enumerate the probability of success claimed by these two united lines intended to connect Wiesbaden to Coblentz.

The river Lahn is of difficult navigation on account of sand-banks, only overcome by several wood-works, which are of no use during nine months in the year; consequently the railway must have the preference for the exportations and importations carried by this river.

The Rhine also presents the greatest difficulties in its navigation from Coblentz to Mentz. Therefore the port of Nederlandstein will supply the railway with a business tenfold superior to that carried on from Francfort to Mentz, where from the water, communication by the Main is so easy.

With regard to passengers, we can be guided by the Taunus Railway, considering the population of the districts crossed by the new line. This

* Recent surveys made by competent engineers proved that a direct line may be taken from Wiesbaden.

population will no doubt give a number of passengers superior to travelling by the Taunus line.

TAUNUS RAILWAY TRANSIT.

Passengers.		Merchandise.	
In January	30,155	40,088½ cwt. in transit	
" February	34,675	10,949 do. Extra lu	
" March	36,572	333 do. Over Pos	
" April	60,667	4,888 do. Post Pac	
" May	60,275	726,869 Silver Florins.	
" June	78,631	1,317 Coaches.	
" July	105,978	6,069 Head of Cattle.	
" August	103,990	12,482 Packages.	
" September	101,234	2,625 Dogs.	
" October	50,236	121 Venison, Deer,	
" November	41,218		
" December	36,059		
Total 744,690			

Abstract of the average German Tariff Prices or Fares for 26 ³/₁₆ miles, taken from official documents.

TRAVELLERS.

	£	s.	d.
1st Class	4	4	7 ^a
2nd do.	0	3	0½
3rd do.	0	2	1½

GOODS AND CATTLE ON WEIGHT.

100 lbs. German weight, equal to 100 lb. English 3s. 4½d.

CARRIAGES.

	£	s.	d.
Coaches and Chariots, each	0	15	1½
Coloses, each	0	11	10½
Cabs, Tilbury, Dennets, &c. each	0	10	1½

Dogs.

Each Dog 1d.

As stipulated above, we can rely on having a number of passengers to that of the Taunus Railway. But it is not to be compared to advantages obtained by us on the transit of goods; they are too easily from Bieberich and Mentz to Francfort by water to be sent by the Railway, running parallel with the Main river. It is quite otherwise the railways projected in the Duchy of Nassau. To be convinced can increase tenfold the quantity of goods, it will suffice to cast a glance at the official following list of the transit from Limbourg to Nieder during the last six months of the present year.

Cwt.	Cwt.
2,717 of worked iron	663,076 Brought over
4,594 Lead	1,784 Baked stones
409 Tin	90 Whist tables
128,505 Rough iron	5,070 Porcelain and jars
2,556 Melted iron	11,287 Mineral waters
510,721 Iron ore	3,252 Wines
9,186 Limestones and lime	483 Brandy
4,388 Marble and building stones	149 Vinegar and cider
663,076	685,191

^a The same distance from Brussels to Antwerp is only paid 2l. 7s. 5d.

Cwt.
685,191 Brought forward.
2,562 Burning wood
1,025 Timber
22,152 Planks
44,340 Coals
27,757 Charcoal
11,737 Gypsum and plaster
70,169 Flour
2 Copper
2,467 Salt

867,402

Cwt.
867,402 Brought forward.
27 Bones
7,526 Colonial goods
1,745 Manufactured do.
1,360 Dye colours
698 Leather and tan
1,358 Oil
120 Saltpetre, powder and sulphur
860,236 Total.

After this enumeration, and considering that the country of Nassau, (where all travellers repair by crowds every year, to visit the mineral springs,) will be sufficiently established, the income of the Wiesbaden and Coblenz line only must be at least equal with regard to passengers, and far superior with regard to the transit of goods, to the Taunus line, which gave last year a dividend of 6 per cent. to the subscribers, and expected to be $7\frac{1}{2}$ per cent. this year.

The advantages of this railway will be duly appreciated after considering the formation of the two other branches: the first leading from Limbourg to Cologne, where it will be connected with the Belgium and Rhenan lines, those of Dusseldorf, Elberfeld, Holland, Hanover and Brunswick; the second branch from Limburg by the side of the Lahn to join at Giesson the grand railway from Francfort to Berlin, as well as the lines of the interior of Saxony and Silesia.

All the above statistical datas, tariffs, distances, and expenses, are taken from official documents.

SECOND SECTION, FROM LIMBOURG TO COLOGNE.

This very important section will start from the banks of the Lahn to Limbourg, to proceed, first, in a straight line northward towards Hadamar and Hachenbourg, bending then to the westward to join the river Sig, near Hamme*, to follow afterwards the valley of that river to Siegbourg, from whence it will proceed almost directly through a vast plain to Doitz, opposite the Cologne Bridge.

In this last town it will communicate,

1st. With the great line leading to the North Sea, crossing the provinces of the Rhine and Belgium.

2nd. With the railway crossing Dusseldorf, to reach Holland alongside of the Rhine.

3rd. With the one intended to communicate through Dusseldorf with Bremen, Hamburg, and Luberg, via Munster and Ostrabruck.

4th. With the road of Elberfeld.

5th, and finally. With the great railway which, from Dusseldorf, crossing Paderborn and Minden, communicates with the lines of Hanover, Brunswick, Prussia, and the North of Germany.

It will be easy after these explanations, and considering the situation of the railway from Limbourg to Cologne, to understand that this line must become the sole road through which all the expeditions from Germany, the North Sea, the Baltic, Belgium, Holland, and Northern Germany must pass.

This road is about 100 miles in length, and runs through a population of 141,570 inhabitants.

It will be to the advantage of the country of Nassau, where exist iron,

* The concession of the duchy of Nassau ends before reaching the village of Hamme.

steel, lead, zinc, and chiefly charcoal mines. The latter, known by the name of brown charcoal, lying in abundance on the surface of the soil, and very valuable for the use of steam engines as well as for smelting metals.

Also in this country are the greatest number of cattle feeders. The cattle are sent to Holland, and even as far as the province of Alsace. The markets of Elberfeld, Dusseldorf, Cologne, Bonn, Coblenz, Mentz, Wiesbaden and Francfort are supplied from nowhere else.

Leaving the country of Nassau, the railway enters the Valley of Sig, whose banks are more important than those of the Sambre and Meuse; with manufactories, foundries, and various machines which are much esteemed in Germany. It possesses besides, very rich iron, copper, and lead mines; at least, the industry of the valley is carried to such a point that there is no doubt that a railway will soon be constructed to branch with ours, on the river Sig*.

Considering the number of passengers repairing to the springs by this road, those supplied by the industrious population on the banks of the Sig, we do not wonder that the most moderate calculations may have estimated the number of passengers by this road to about one million; that is to say, an increase of 250,000 over that from Weisbaden to Coblenz.

The quantity of goods carried last year from Limbourg to Cologne:—

Cwt.		Cwt.	
169,684	Colonial goods	3,458,201	Brought forward.
110,000	Cattle and grain	95,000	Mineral waters
60,000	Worked iron	42,000	Wool, flax, tow, and thread
105,000	Iron ore	1,000	Worked steel
100,000	Manganese and smaltz	1,300	Basalta
146,620	Vegetable charcoal	2,300	Timber
139,003	Coals	2,000	Flour
184,940	Cotton and prints	600	Cast iron goods
42,000	Fruits and vegetables	2,000	Hay, straw, potatoes, wine, beer
150,000	Bark	4,000	Salt
1,042,590	Rough iron, steel, copper, and lead	10,000	Charcoal
302,000	Gypsum and broken bones	4,000	Tin and wire
20,000	Marble	200	Gunpowder
10,000	Clay	1,000	Lime
791,164	Grain and seed	2,000	Coke
85,200	Hides, leather, and tan	800	Limestones
3,458,201		3,626,401	Total.

The above data are extracted from official documents in the country of Nassau. We now produce information obtained from manufacturers and iron founders from the Prussian districts crossed by the projected railway from Nassau to Cologne.

20,000	cwt. of Alum, from the Sigbourg Mine.
100,000	" Cast iron, from Messrs. J. T. Langen.
10,000	" Alum, from Mr. Säger.
100,000	" Tiles and bricks, from Mr. A. Mulmann.
10,000	" Alum and vitriol, from the Brothers Rhodia.
20,000	" Alum, from Mr. Gollschalk's mine of Elberfeld.
100,000	" Cast iron, from Mr. Hiesman of Sigbourg.
100,000	" From 20 lime ovens in the same district.
12,500	" Yarn, from the Brothers Tong.
2,000	" Tin, from Mr. C. Stein, near Sigbourg.
474,500	

* In the provision of our grant this line has just been granted by the Prussian Government.

THIRD SECTION, FROM LIMBOURG TO GIESSEON.

The road from Limbourg to Giesseon goes eastward by the side of the river Lahn, crossing Weilbourg and Wetzlar. At the terminus it is connected with the railway leading from Francfort to Hesse Cassel, where it forms a junction with all Northern Germany, Saxony, and Silesia railways. It runs about 40½ English miles, through a population of 86,000 inhabitants.

This valley, and principally the country situated to the north, in the direction of Herborn and Billenbourg, is as flourishing as the valley of the Sig. There is a large quantity of foundries, steel manufactures, and many sorts of mines.

So considerable is the commerce of this province, that they are now making a canal from Dillenbourg to the valley of Lahn, promoting, consequently, the interest of the railway. At a later period it will be easy to have a profitable extension in that direction, where the government of Nassau already possesses the necessary surveys.

Considering that this line must connect the great junction from Berlin to Paris, from Prussia to the French provinces on the Rhine and in central Germany, it will be acknowledged that the calculation of the increase of passengers by the three other sections are not exaggerated. After having exactly investigated statistical data, we can expect from the "ensemble" a yearly transit of from 800,000 to 900,000 passengers.

Official documents prove, that the line from Limbourg to Giesseon carried 146,620 cwt. of goods, as follows, during the last quarter :—

70,400 cwt. of Rough iron and steel	117,820	cwt. Brought forward.
600 " Washed iron	4,600	" Flour
3,020 " Worked steel	4,000	" Colonial goods
5,000 " Iron ore	10,000	" Charcoal
17,000 " Lead and copper	4,000	" Hardware
5,500 " Tan	1,200	" Lime
3,000 " Timber	2,800	" Coal
3,300 " Vegetable charcoal	1,200	" Cattle
10,000 " Grains	1,000	" Leather
117,820	146,620	

CONCLUSION.

After having closely examined what precedes in relation to the Nassau Railways, the concession of which was granted on the 9th of December inst., it will be sufficiently proved that Limburg is the central point where all the branches are to join together.

From that point, almost the centre of the duchy, start four main lines independent of the ones from the others; but helping each other, and admirably connected.

The first runs to the southward, and meets at Wiesbaden the Taunus Road.

The second runs to the westward, and meets the projected line of the Moselle Valley, and communicates besides with the Rhine and the Moselle.

These two first sections form by themselves the Wiesbaden and Coblenz Railway.

The third line runs to the northward on Cologne, where it is connected with the Belgian, Rhenan Road, and with the line of Dusseldorf. This third section, with the first, form the Cologne and Wiesbaden Railway.

The fourth line runs to the eastward towards Giesseon, where it meets with the Francfort and Cassel Railway, and forms, with the second section, the Giesseon and Coblenz line.

It would be superfluous to prove all the advantages of so complete a system, which is necessary to combine all the great lines of Germany. Casting a glance on the map will demonstrate the importance of what we advance.

Should we be desirous to enumerate the probabilities originating from the official documents recited in this "*exposé*," we could easily attain such that no other undertaking could offer such advantages.

Miles.

59	The line from Wiesbaden to Coblenz, forming a complete line, even taking it as far as Longstein, runs 59 English miles, which, on an average of £10,600 per mile, would cost*	£625,400
20	That from Limburg to Giesson, alongside of the Lahn, up to the frontiers of Prussia, 20 English miles, at £10,600 per mile	212,000
40	The line from Limbourg to Cologne runs 40 English miles, at £10,600 per mile	424,000
<hr/>		
119	English miles, amounting together to	£1,261,400
That is the grant now conceded in the duchy of Nassau.		
86½	There is besides to run, 86½ English miles on the Prussian territory, to complete the Cologne and Giesson line, which, at £10,600 per mile, as above, would cost	914,250
<hr/>		
205½	English miles.	Total £2,175,650

General Mellon will accept the mission of treating with the Prussian Government in order to obtain the concession of the lines necessary to complete those already granted by the ministry of Nassau; on account of his high connections in Prussia, he is certain to succeed, should the Company deem it expedient to provide for the necessary expenses.

DESCRIPTIVE NOTICE OF THE MINES AND AMALGAMATION PROCESS OF MEXICO.

(Continued from page 185.)

In every mining establishment there are many other persons employed besides those who actually break away the ore underground; and so, in Mexico, we find that the proportion of the *Buscones* or *Barreteros* is very small compared with the whole number of those who gain their livelihood by working for, as well as in, the mines. I must here have reference particularly to Real del Monte, because I have a more intimate acquaintance with it than with the other districts; and at Real del Monte the proportion of the *Barreteros*, or those who receive an eighth of the ore, is rarely, if ever, more than a seventh, or under 200 persons, the remainder of those employed consisting of *Destajeros*, or miners who work on contract; *Ademadores*, or timbermen; *Peones*, or labourers, besides a host of watchmen, malacate men, ore dressers, smiths and their assistants, carpenters and assistants, enginemen, masons, stablemen, cart and waggon drivers and others; altogether num-

* The 10,600*l.* average of cost per mile includes the ground prepared to receive a *double* rail, but the road to have only a *single* one, with the necessary materials, for the present.

bering in one week, when the *Raya* or wages account was presented, upwards of 1,400 persons. And it is very much the same in other districts, excepting that circumstances may tend to produce a difference in the relative proportions of the various classes.

The wages paid vary from three reals to a dollar per day, rarely exceeding the latter, and only being less than the former rate in the cases of boys, who are mostly employed in the ore dressing, and are paid from one real to three reals per day.

The supply of stores is an important point in the economy of Mexican mining on a large scale; for unless the purchases are made of many of the articles at the proper season, considerable loss will inevitably follow to the concern. Prices vary considerably in the different districts, because much depends upon their proximity to or distance from the source of supply—carriage forming, as I before noticed, a large item in the amount of cost. It would tend very much to the encouragement of mining, if some of the restrictions and heavy duties at present imposed upon the importation of mining materials and stores from foreign countries were removed. Such restrictions only serve to cripple the efforts of the miner, and consequently indirectly tend to lessen the revenues that would otherwise flow into the coffers of the Government from a more extended working of the mines. The same remark may apply to the productions of Mexico herself, as we find the manufacture of gunpowder and its supply to the mines to be a Government monopoly; and for this essential article the price in Mexico, as charged to the miner, is four reals per lb., or two shillings for that which is obtained in England for sixpence, of equal if not superior quality.

Having thus gone through some of the most important particulars relating to the mining operations, I now proceed to describe the method of extracting the silver from the ore, at the establishments maintained for that purpose, called *Haciendas de Beneficio*, or *Haciendas de Plata*, of which there are many of great extent in the country. The *Haciendas Nueva* in *Fresnillo*, of *Sauceda* in *Zacatecas*, of *Barrera* in *Guanajuato*, and of *Regla* at *Real del Monte*, are the principal establishments of this kind at present in use. That in *Fresnillo* is the largest used for amalgamation only, the outer walls being 492 varas in length, by 412 varas in width. It was erected at a cost of 300,000 dollars, and is very complete in all its arrangements.

The *Hacienda de Regla* combines very extensive smelting works with those for amalgamation. It possesses ample water-power for the *arrastres* and other machines. The old walls are of amazing solidity and strength, and the situation is most romantic, being in a ravine, the sides of which are composed of columnar basaltic rocks to a height of 150 feet. These circumstances contribute to make it, without exception, the most interesting, and perhaps the finest, hacienda in Mexico.

The ore being placed in heaps in the yard is broken by hammers into pieces of moderate size, and carefully picked; the richer parts being set aside for smelting, and the poorer for amalgamation.

In the smelting process the ore, after being crushed, is mixed with slag or remains from former smeltings, litharge or oxide of lead, and a little iron ore and lime. These are put into the furnace with charcoal, and the silver is brought down with the lead, the two metals being afterwards separated in refining furnaces. The German high furnace is

usually employed, and the superintendence is frequently although not always entrusted to Germans.

It is estimated that about an eighth part of the silver produced in Mexico is obtained by smelting; but as only the richest ores are subjected to this process, on account of the expense, which is from 15*l.* to 20*l.* per ton, except in a district like Zimapan, where lead ore is abundant, the proportion which the quantity of ore smelted bears when compared with that reduced by amalgamation must be very small indeed.

The process of amalgamation, to which attention is now more particularly directed, depends upon the great affinity of quicksilver for silver. In order, however, to make this known property available, certain operations are requisite, to reduce the silver contained in the ore to such a state that the quicksilver will readily combine with it.

After the breaking and dressing by hand the ore is crushed, either by crushing rollers or more generally by stamps, called in Mexico, *Molinos*. The stamps are similar in principle to those used in the tin mines of Cornwall, but not so powerful, and are worked either by water-power or by mules. As the ore is crushed, it falls through small holes of about the size of peas, perforated in strong hides stretched in a slope on either side of the machine placed over a pit which receives the fine ore, from whence it is conveyed to the *Arrastres* or grinding mills.

The *Arrastre* or *Tahona*, as it is called in the northern districts, is exceedingly simple, but for so rude a machine is very effective. Baron Humboldt, in alluding to it, says that he never saw ore so finely pulverized as he saw it in Mexico. In Guanaxuato, where there is much gold in the ore, this is particularly observable.

The *arrastre* consists in the first place of a strong wooden post moving on a spindle in a beam above it, and resting on an iron pivot beneath turning in an iron socket on the top of a small post of hard wood which rises about a foot above the ground in the centre of the *arrastre*. The shaft is crossed at right angles by two strong spars, which form four arms, each about five feet long, one excepted, which is about nine feet, to admit of two mules being attached to it, by which leverage the machine is worked. Sometimes there is an additional arm to which the mules are attached.

The grinding is performed by four large stones of porphyry or basalt, loosely attached by thongs of leather or string to the four arms. These are dragged round over the ore, which is put in with water, until it is ground to an exceedingly fine slime or mud, called the *lama*; and the finer this is done the more successful the operation is likely to be, because the silver is not massive and metallic in the ore, but is intimately disseminated throughout the matrix in combination with sulphur, and in very minute particles.

One of these machines will grind six quintals or 600 pounds weight of ore in twenty-four hours. In Zacatecas and Fresnillo, where they do not grind so finely, ten quintals are reduced in the twenty-four hours.

Opinions seem to differ as to the necessity of grinding the ore very finely, and in Zacatecas especially it is not thought requisite because the ores do not contain gold; but it appears very probable that some of

the heavy loss of silver in that district may be attributed to this inattention to the grinding, because where the particles of the metallic sulphuret are so minutely dispersed through the stone, unless this stone is ground into an impalpable powder, so as to allow of a perfect chemical action upon the exposed surfaces, there cannot be complete decomposition, and hence we have residuums called *marmajas* and *polvillos*, which have to undergo the operation a second time. I could mention the names of several practical men who attach great importance to fine grinding, but shall confine myself to quoting a few remarks by Mr. Woodfield, the administrador of the Hacienda de Regla, who has had much experience in the amalgamation process. Alluding to the grinding at Regla, which he considers still imperfect, he says, "To improve the grinding, I consider that it will be necessary to make a change in the quality of the stones used in the *arrastres*. At present they are of agate and basalt^a; the former are used for the bottom of the *arrastres*, and the latter for the grinding stones. After being a short time in use these stones have a very smooth surface, and slide over the metal without any grinding action. In Guanajuato, where the best and finest grinding is obtained in the *arrastres*, the lining or foundation and the grinding stones are of a porphyry which contains a coarse grain, and forms a rough surface to the last."

Mr. Woodfield here corrects an error in Mr. Ward's book on Mexico, and copied by Dr. Ure, the error being in the statement that the grinding stones as well as the sides and bottom of the mill itself are composed of granite; the fact being that they are composed of porphyry, as there is no granite in the immediate vicinity of Guanajuato, and Humboldt only speaks of granite near Acapulco. Jamieson, in his *Manual of Mineralogy*, says, "In Mexico, owing to the deep and high cover of porphyry, it is found only low down, as at Acapulco."

Mr. Woodfield, however, goes on to say, "In the year 1828 I was visiting the mineral district of Comanga, about eighteen leagues north-west of Guanajuato, in company with the late Dr. José Maria Bustamante, a scientific man mentioned in Humboldt's work; and we there found some very fine granite, which has, however, never been disturbed for any purpose. In the *Cañadas*, a short distance to the north of Valenciana, sienite is found in great abundance; but although nearer than the quarries from which the porphyry is taken, sienite is never used, on account of its having the same defect as basalt, namely, a deficiency of granular surface compared with porphyry."

Recently a new machine has been introduced at Real del Monte which bids fair to supersede the old Mexican *arrastres*, or at least to change the opinion before entertained of the efficiency of the latter. This machine is similar in principle to some of the grinding mills of this country, and to the *trapiche* of Peru. It consists of two large circular edge stones faced with iron, and moving over iron bottoms, the ore being crushed and ground with water between the two metal surfaces. The machine is turned by twelve mules in the twenty-four hours, four mules working at a time, and the quantity ground to a fine slime is sixty

^a The use of basalt is peculiar to Regla, from the circumstance of the sides of the ravine in which the hacienda is situated being composed of basaltic columns, easily detached, and consequently the stones cost a mere trifle.

quintals, or about ten times the quantity ground by a common *arrastre*; and there is reason to believe that the quantity might be doubled by the use of water or steam-power, as the number of revolutions would be increased.

Instead of facing the stone with iron the grinder might be made entirely of iron; but it is objected to this that, being cast iron, it would be useless when worn, whereas the facings may be replaced at comparatively little cost.

The ore being brought into a finely divided state, is allowed to run out of the *arrastre* into shallow tanks or reservoirs, where it remains exposed to the sun until a large portion of the water has evaporated, when it has the appearance of thick mud; and in this state the process is proceeded with.

The "*lama*," as it is called, or slime, is now laid out on the *patio*, or amalgamation floor, (which is in some places boarded, and in others paved with flat stones,) in large masses called *tortas*, forty to fifty feet in diameter, and about a foot thick, consisting frequently of sixty to seventy tons of ore; and so extensive are the floors that a large number of these *tortas* are seen in progress at the same time. Thus, at the Hacienda de Regla, the patio, which is boarded and carefully caulked, to render it water-tight, is capable of containing ten of these *tortas*, of about sixty tons each and fifty feet in diameter. The Hacienda de Barrera, in Guanajuato, will hold eighteen *tortas* of seventy to seventy-five tons each. The Hacienda Saucedá at Zacatecas will contain twenty-four *tortas* of sixty tons each; and the patio floor of the Hacienda Nueva, at Fresnillo, is still larger, being 180 varas in length by as many in width, and capable of containing sixty-four *tortas* of seventy tons each! Of such magnitude are the works requisite for the reduction of the ores of silver by the Mexican process of amalgamation.

Having laid out the masses of ore in the patio, the operations necessary to produce the chemical changes commence. The first ingredient introduced is salt, which is put into the *torta* in the proportion of fifty lbs. to every ton of ore, (but varying in different districts,) and a number of mules are made to tread it, so that it may become dissolved in the water, and intimately blended with the mass. On the following day another ingredient is introduced, called in Mexico *magistral*. It is common copper ore, or sulphuret of copper and iron pulverized and calcined, which converts it into a sulphate. About twenty-five lbs. of this *magistral* are added for every ton of ore in the *torta*, and the mules are again put in and tread the mass for several hours. Chemical action now commences: the salt, *magistral* and metallic sulphurets are decomposed, and new combinations are in progress*. Quicksilver is then introduced, being spread over the *torta* in very small particles, which is effected by passing it through a coarse cloth. The quantity required is six times the estimated weight of the silver contained in the ore, or three lbs. for every marc of eight oz.

The quicksilver being spread over the surface the mules are once more put in, and tread the whole until it is well mixed. This treading is called the "*repaso*," and is repeated every other day, or less often,

* Mr. Bowring says, "The only chemical action is the formation of bichloride of copper and sulphate of soda."

according to the judgment of the *Azoguero* or superintendent, until the operation is completed.

But it is in the progress of the operation that the skill of the *Azoguero* is most required, because he must attend to certain signs or appearances which present themselves to him, and upon which depends the success of his work, whether as it regards the produce of silver or the economy of quicksilver and other materials and time. For this purpose he has a small quantity of the *torta* put on one side, upon which he operates before adding materials to the *torta* itself: this is called a *guia*, or guide. In order to ascertain how the chemical action in the *torta* proceeds, he collects a small quantity of the slime and washes it in a small bowl, and by the signs presented by the quicksilver and amalgam he, from his practical knowledge of the subject, is able to judge as to the state of the *torta*: whether it requires more magistral or quicksilver; or whether it has had too much magistral, in which case it is hot, and a little lime must be put in to decompose the excess of bichloride of copper^a. This simple plan is termed the "*tentadura*," by which in fact the *Azoguero* is guided throughout the amalgamation process.

When at length he finds that quicksilver is no longer absorbed, the operation is considered complete, and the *torta rendida*, or ready to be washed, and sometimes lime is added to stop further action. A large quantity of quicksilver is then thrown in, and is called "*el baño*," or bath, which combining with the amalgam, causes it to separate the more readily from the slime in the washing. The time required to complete the process varies from ten to thirty days; but in some places is often considerably more, according to climate and the nature of the ore.

The amalgam has now to be separated from the mass, which is done at Real del Monte by washing it in a large square vat, in which several men keep constantly stirring it with their feet, while at the same time a stream of water is made to pass through. By this means the lighter particles of the mud flow out into canals furnished with basins, called *apuros*, to catch all stray amalgam and quicksilver, and the great body of the amalgam remains at the bottom of the vat.

In Guanajuato the process of washing is more perfect. They have three circular vats called *tinajas*, in which the ore is stirred by means of long wooden teeth fixed in cross bars attached to a vertical shaft, the whole turned by a simple machine, worked by mules. The slime has to pass through the third vat before being carried entirely away, so that a very small portion indeed of the amalgam escapes. The process of washing is somewhat similar in Zacatecas, but there they use but one *tina* or vat.

The whole of the liquid amalgam being collected is put into a stout canvass bag called a *manga*, through which the uncombined quicksilver is strained, leaving the hard and dry amalgam within. This dry amalgam is then pressed into a wedge-shaped mould, and formed into what are called *bollas*, or *marquetas*. These *bollas* are piled up in a circle on an iron or copper stand, having a round hole in the centre, and placed over an iron basin kept cool by a stream of cold water flowing round it; or in some places over a pipe or canal leading to a tank of water. A large

^a Bowring.

bell-shaped copper vessel, called a *capellina*, is then lowered over the whole, and carefully luted. A charcoal fire confined around by fire bricks is then lighted, and kept burning all night, and by its heat the quicksilver is volatilized, and separating from the silver finds its way into the vessel below, where it is condensed, leaving the silver in a pure state. The silver is afterwards cast into bars and sent to the mint for coinage.

(To be continued.)

PARLIAMENTARY PROCEEDINGS.

LORDS.

FEB. 2.—FEES ON BILLS.—Lord Kinnaird moved “for a return of the amount of fees incurred by the introduction of railway bills into this House during the last session of Parliament, and by petition against such bills, and how applied.” The necessity for this motion was proved by the enormous expenses attendant on the passing of railway bills. The noble lord cited one case in which the whole estimated cost was 200,000*l.* All the proprietors on the line assented, and the neighbourhood anticipated great benefits; but the cost of meeting the opposition of another amounted to no less a sum than 15,000*l.*; and in another case in which a private gentleman opposed a railway, all the attorneys’ accounts amounted to 800*l.*, of which the fees of Parliament took up 300*l.* The motion was agreed to.

FEB. 5.—RAILWAY DEPOSITS.—REPORT OF THE SELECT COMMITTEE.—Lord Dalhousie said, I have been requested by the committee to report the following resolution:—“That it is the opinion of this committee that such portion of the Standing Order No. 224 as requires the promoters of a railway bill to deposit one-tenth of the capital subscribed, should be suspended, with respect to such railway bills as shall commence in the House of Lords during the present session. That no such railway bill should be read a first time until a further sum of one-twentieth of the amount subscribed be deposited, and not read a third time until an additional one-twentieth be deposited, and that no railway bills be received after Monday, the 23rd of February.”

FEB. 6.—RAILWAY BILLS.—The Earl of Dalhousie drew the attention of their lordships to the railway resolutions laid on the table last night. The committee recommended the commencement of certain bills this session in their lordships’ House; and it was proposed that all Irish bills should be there originated. The noble Earl went into a history of the Standing Orders of both Houses in relation to the per-centage required to be paid up on the deposits. The House of Lords required a payment of 10 per cent.; the House of Commons a payment of 5 per cent. The committee recommended that for a payment of 5 per cent. the bill might be admitted, provided the deposit had been made on the 6th of February, but that they should not be admitted to a third reading until an additional 5 per cent. should be paid; this would place them nearly in the same position which they would have occupied if they had been originally introduced into the House of Commons. Measures passed last session in the Commons, and which had been dropped in the House of Lords, should pass the Commons *pro forma*, and come before the Lords immediately, and that competing projects should be permitted to originate in the Lords. The noble lord concluded by moving a resolution founded on the Report of the Committee.—Lord Monteagle considered that

the proposed alteration would benefit the Irish labourer, by bringing the railway works in that country into earlier operation. He would suggest the propriety of admitting proof of compliance with the Standing Orders simultaneously before both Houses. He thought that the deposits might be made in public securities as well as in money.—The Earl of Stradbroke urged the necessity of giving precedence to bills connected with the south of Ireland.—The resolutions were agreed to.

FEB. 10.—RAILWAY INVESTMENTS.—Lord Brougham gave notice that he would move for a return of all the monies that had been paid to the Accountant-General on account of railways to be brought before Parliament this session.

FEB. 12.—SELECT COMMITTEE'S SECOND REPORT.—The Earl of Dalhousie stated that the committee had provided against all unnecessary delay in the progress of Irish bills, and had taken measures to prevent any discrepancy as to Standing Orders which might be expected to arise from the originating of railway bills in the House of Lords. They had recommended the system of last session, namely, grouping together the bills within a particular district, either as competing lines, or as having a general relation to each other; and in fact, they had recommended every arrangement with a view to the prevention of unnecessary delay.

BROAD AND NARROW GAUGES.—In answer to Lord Kinnaird, the Earl of Dalhousie said, he had received the Report on the Gauges to-day, and he would take care to lay it on the table without delay.

FEB. 13.—Lord Dalhousie moved the adoption of the resolutions of the second Report of the Lords' committee, which were agreed to.

RESOLUTIONS AGREED TO FEB. 13, ON THE MOTION OF LORD DALHOUSIE.

"Resolved,—That it is the opinion of this committee that the Standing Orders of this House with regard to railway bills should, as respects railway bills commenced in this House during the present session, be altered in the following particulars:—

"That Standing Order No. 219 be altered in the following particulars, viz:—That on the bill being reported to the House from the committee on the bill, or at any time previously, on the petition of the parties to such bill, or any of them, the bill shall be referred to the Standing Order committee, which shall inquire whether the Standing Orders, the compliance with which is directed to be proved before or reported by the Standing Order committee previously to the third reading of the bill, have been complied with, and the committee shall report on the matters referred to them by the Standing Orders. That five clear days' notice be given of such meeting of the committee, and that it be proved to the satisfaction of the committee that the Standing Orders had been complied with five clear days before such meeting of the committee. That the Standing Order committee shall not meet to consider the compliance with such of the Standing Orders as are directed to be brought before them, until after the expiration of seven clear days from the presentation of the petition, if the bill relate to England, nor until after the expiration of ten clear days, if the bill relate to Scotland or Ireland. That every petition complaining of a non-compliance with such of the Standing Orders as are directed to be proved before the Standing Order committee subsequently to the first reading of the bill, shall be presented three clear days before the meeting of the committee to consider such Standing Orders.

"That Standing Order No. 220 be altered in the following particulars, viz:—That the service of every application required to be made to the owners or reputed owners, lessees or reputed lessees and occupiers, by the fourth paragraph of the said Standing Order, may, unless a petition complaining of the want of due service of such application shall have been referred to the Standing Order committee, be proved by the evidence of the

agent or solicitor for the bill, stating that he gave directions for the service of such application in the manner and within the time required by the Standing Orders, and that he believes that such application was so served; but in case the Standing Orders committee shall not be satisfied with the evidence of the agent or solicitor, the service of such application shall be proved in the usual manner. That no bill commencing in this House, and empowering any company already constituted by Act of Parliament to execute any work other than that for which it was originally established, shall be read a third time, unless the committee on Standing Orders shall have specially reported that the requisitions contained in paragraph No. 5 of such order have been complied with.

"That Standing Order No. 224 be altered to the following particulars, viz.:—That as respects all railway bills which shall commence in this House during the present session of Parliament, it shall be proved to the satisfaction of the Standing Order committee, that a sum equal to one-twentieth part of the amount subscribed has been deposited in the manner required by the said Standing Order, on or before the 6th day of February, inst.; and it shall likewise be proved to the satisfaction of the said committee, before the third reading of such bill, that a further sum equal to one-twentieth part of the amount subscribed has been deposited in like manner.

"That Standing Order No. 225 be altered in the following particulars, viz.:—That it shall be sufficient if the proof required to be given by the last-mentioned Standing Order be adduced before the Standing Order committee, at any time previous to the third reading of the bill. That all the Standing Orders applicable to railway bills, except such of them or such part of them as are altered by or are inconsistent with the aforesaid Standing Order, shall apply to the railway bills commenced in this House during the present session of Parliament, and to the proceedings in such bills."

FEB. 17.—RAILWAY GAUGES.—The Earl of Dalhousie laid upon the table the Report of the Commissioners on the respective merits of the broad and narrow gauges on railways.

COMMONS.

FEB. 2.—THE GAUGES.—Mr. Gisborne wished to know when the reports upon the relative merits of the two gauges might be expected? and Sir G. Grey replied, as soon as possible.

FEB. 4.—IRISH GREAT WESTERN.—Mr. B. Baldwin moved that it be an instruction to the committee on this bill to entertain the petitions of the Midland Great Western Bill of Ireland, and James Malley and others, notwithstanding that the same may not have been presented three clear days before the meeting of the committee. This instruction was necessary in consequence of the adjournment on Friday. A person had written him that the petitions would be in the hands of the parliamentary agent, Mr. Smith, on that day; and that gentleman came to him on Monday, and said he had not brought him (Mr. Baldwin) the petitions, because he knew the House did not sit. Under these circumstances he hoped the petitions would be received.—Mr. O'Connell called for the opinion of the Speaker, who said that the rule was clear that the presentation of petitions should not be prejudiced by the adjournment of the House, provided the member to whom the petition was intrusted, or any other member, pledged his word that the petition was ready to be presented on the day on which the House did not sit. This rule, however, did not, of course, include parliamentary agents. The motion was negatived without a division.

FEB. 5.—REPORT OF SELECT COMMITTEE ON RAILWAYS.—Lord G. Somerset brought up the first Report (which will be found amongst our Official Papers).

MANCHESTER AND SOUTHAMPTON PETITION.—Mr. Gisborne had given notice of a committee to inquire whether an addition had been made to the peti-

tion after its presentation to the House. It was satisfactorily explained, that a sheet had been dropped in forwarding the petition.

FEB. 6.—RAILWAY BILLS.—Lord G. Somerset called the attention of the House to the resolutions of the Select Committee. The first was, that a portion of the bills should commence in the House of Lords; and that in the case of all bills thus commencing in the House of Lords, this House should not insist on their usual privilege with regard to the clauses fixing and regulating the toll rates in such bills. The committee also considered it necessary, in order to give increased means of employment to the people of Ireland, that facilities should be given for the early introduction of Irish bills. Now, in order to facilitate the passing of those measures, this proceeding was recommended, and therefore he trusted the House would not hesitate to adopt the report.—Mr. F. French: The resolutions would affect two classes of bills, viz., all Irish bills, and all such other bills as were in the position of that of the London and York. The noble lord had recommended that all bills thus circumstanced should go at once before the House of Lords; but this, he contended, would be a most inconvenient course for the Irish bills. He could show pretty clearly that there was no substantial benefit whatever conferred on the Irish bills by this arrangement. He found that if the committee report that the Standing Orders have not been complied with, the bill is referred to the Standing Orders Committee. Now, this was most unjust. He contended that they should not be allowed to do so, as they thus put the opposing parties to renewed expense, just as if they had not made out their case. There was a difference of practice in the Commons and the Lords: in the former, in Irish bills, it was only necessary to prove the service of the proper notices by an affidavit, sworn before a judge or an assistant barrister. In the House of Lords, however, it was necessary to bring over every person who had served these notices, in order to prove them. If the practice of the House of Commons were adopted, a material saving would be made.—Mr. Bernal was not prepared to prefer Irish schemes until he saw the justice of such a preference; for when they considered the number of English schemes at present, and the mystery as to their ultimate success, such a step was contrary to justice. The Report would assuredly disappoint the public, and neither Ireland nor Scotland would consider this preference as a boon. He also thought that the noble lord on the committee might be prepared with some scheme to lessen the enormous expense attendant on these railway schemes, and suggest some better way of disposing of them.—The O'Connor Don considered it would be esteemed the greatest service to Ireland to employ the Irish labourers in their own country.—Mr. Aglionby opposed the adoption of the Report.—Sir G. Clerk did not consider that any possible inconvenience could arise from the adoption of the course suggested by the Select Committee. Owing to the peculiar position of Ireland, the Government were anxious that every facility should be given to the passing of all Irish railway bills, with a view to giving the labouring population of that country employment when it would be most wanted, namely, in the months of June and July next.—Mr. Ross said it would be well that all bills not having to encounter competition should be at once sent to the House of Lords.—Mr. Green said that those bills which complied with the Standing Orders (it was recommended) should be sent at once to the House of Lords, and that would greatly facilitate the business.—Mr. W. Collett considered that the Government ought to take some means for expediting the bills which had once been reported to have fulfilled the Standing Orders.—The Speaker having then read some extracts from the Report, Mr. E. B. Dennison said that it would be a very hard case should they rescind the order of the 7th of July last. It provided that bills which had passed the ordeal of this House should be entitled to go into the House of Lords just as they stood—meaning those bills which had passed the Standing Orders Committee. Now, that was the case of the Portsmouth group and the London and York. Would it not be very hard indeed if

these companies, after having gone to such enormous expense, should be precluded now, and have to commence *de novo*? The motion was at length agreed to.

FEB. 9.—THE AYRESHIRE AND GALLOWAY SUBSCRIPTION DEED.—Mr. Hodgson wished to put a question to the Attorney-General. The House was aware that the subscription contract of every company required three parties, two of whom were the shareholders and the trustees. In the contract deed of this company the trustees were also shareholders. The committee had reported that the Standing Orders had not been complied with, as they were of opinion that the subscription contract was rendered invalid by the fact of the trustees being also shareholders. He, therefore, asked if this circumstance necessarily invalidated the subscription contract.—The Attorney-General said that the Standing Orders only required that the parties to the subscription contract should bind themselves, their heirs, executors, &c., to the payment of the sums mentioned in the deed. In the present case one of the parties to the deed, the trustees, were also shareholders; so that, in fact, they constituted one party—they were both covenantors and covenantees. Upon this the committee reported that the contract was invalid so far as related to the trustees. He thought they were mistaken. The question was, whether the Standing Orders were complied with, by binding the parties to the deed to the payment of the subscription money; that was done by the trustees, although they were also the shareholders. It was true that the trustees could not bring an action at law, because a party could not sue himself; but in equity the parties were bound by the deed, and must pay. This, besides, was a Scotch railway, and as there was no distinction between law and equity in the Scotch courts, if the deed were to be enforced there it did not signify. He thought that the subscription contract was a good one in England, and especially so in Scotland.—Sir J. Yarde Buller would not pretend to combat the law as laid down by the Attorney-General. The best course seemed to him to be, not to allow this bill to take the usual course, but to let the sub-committee take the point into consideration.—Mr. Greene moved "That the matter be referred back to the committee to make a fresh Report," and the motion was carried.

FEB. 12.—SELECT COMMITTEE'S SECOND REPORT.—Lord G. Somerset moved the further consideration of this Report (see Official Papers).—On the question that the Report be agreed to, Mr. T. Duncombe called the attention of the House to a proposition which would curtail the duties of the committees. The greater portion of the time of the committees was occupied in proving "traffic." This was a great waste of time, for every one knew how traffic-tables were got up. The proposers always produced a large amount of traffic up to a certain point—then there was rebutting evidence, and as neither party was upon oath, the committee had to listen to the most extravagant statements. If a railway was necessary between two towns, he should not require any traffic-tables. The last resolution in the Report stated, that "every committee should fix the tolls and determine the maximum rates of charges for conveyance; but if the committee should not deem it expedient to determine such maximum rates, a special Report, explanatory of the grounds of their omitting to do so, should be made to the House, which special Report should accompany the Report of the bill." Why not add a similar resolution to enable the committees to decide on the question of traffic, with the proviso that if they did not think it expedient to hear evidence, they might refuse to do so, and report to the House their reasons for such refusals? The hon. gentleman then moved that a resolution to this effect should be added.—Lord G. Somerset begged to state, that every case was under the consideration of the committee, and they would shortly report upon it. He hoped, therefore, the hon. gentleman would withdraw his amendment. Committees ought to have a discretion in calling sufficient evidence to prove traffic.—Mr. B. Denison, as chairman of two or three committees, agreed with the hon. member for Finsbury, that the

manner of dealing with traffic was most unsatisfactory, and it was necessary that the House should consider this.—Mr. T. Duncombe, ascertaining that the question was under consideration, would withdraw his amendment.—Mr. P. M. Stewart said, that with regard to the selection of members for the committees, some had had only six weeks of this duty, and others had not tasted its sweets at all. He thought it was fair that those who had served last session should be exempt now, until those who had not served had done so.—Mr. Gisborne disagreed with his hon. friend on this point. The members who had served last year had got over their incompetency, and the railway bills ought to have the benefit of their experience this year.—The amendment was then withdrawn, and the Report received.—Lord G. Somerset then moved that the following members should be appointed on the committee of classification :—Lord Courtenay, Mr. Fox Maule, Mr. Wilson Patten, Sir William Somerville and Mr. Pakington.

FEB. 13.—PETITIONS FOR PRIVATE BILLS.—Mr Strutt brought under the notice of the House the fact that several petitions for private bills had been received by the House in consequence of some irregularity which they contained having been overlooked. There were several instances where the Standing Order, 111 A, had not been complied with.—Mr. Greene gave a notice of motion to the effect, "That in all cases of private bills no petitions should be received unless they had been prepared and properly signed by the parties themselves."—Mr. Entwistle said, that complaints had frequently been made of the operation of the Standing Orders in reference to matters of a minor and very trivial nature, and parties were often put to enormous expense by being compelled to attend here, and then all that was lost by reason of the bill being thrown out upon some matter of a very trifling nature, and they were told that they had been defeated by a non-compliance with the Standing Orders. With regard to what the hon. member for Lancashire had said, he would just make this observation, that the number of petitions was so great that it was quite impossible for this House to take cognizance of the contents of the whole of them. It would be well, therefore, if some measure were introduced to prevent this useless expenditure of thousands of pounds before a bill had passed the Standing Orders.

FEB. 16.—RAILWAY CLASSIFICATION.—Mr. W. Patten brought up a Report from the Railway Classification Committee, stating that they experienced great difficulty, in consequence of parliamentary agents entering their projects under one head at the Board of Trade, at the Private Bill Office under another, and upon introducing them to that House under a third, which rendered it almost impossible for the committee to make a correct classification. The committee trusted that the House would make some order to check this irregular mode of procedure.

PETITIONS AGAINST PRIVATE BILLS.—Mr. Greene brought forward his motion, "That it be an instruction to the committee on petitions for private bills, and to all committees upon private bills, not to hear parties on any petition referred to them, which shall not be prepared and signed in strict conformity with the rules and orders of this House." He was well aware that to a certain degree it fell to that House to direct the committee upon petitions for private bills not to hear parties who had not complied with the Standing Orders of that House ; but he believed that it would be unjust to enforce this order, since no instructions had been issued to the committee, that they were not entitled to refuse to hear parties upon petitions, even though those petitions had not been remitted in strict conformity with the rules of the House. There was no general notice by which parties at a distance could know what passed in committee, and until the present resolution was agreed to, or rejected, he thought it would be unfair to enforce the order in question. He had felt himself bound to hear parties, and inasmuch as it was necessary to regularly enforce this order of the House, he had given notice of the motion upon the paper. Every petition which was to be presented to that House could not be examined, and therefore the petitions were re-

mitted to a select committee, not so much for the purpose of relieving the clerks, but in order to expedite public business. He thought, therefore, that parties at a distance were as much entitled to know the regulations of that House as they were of any new statute which might be passed. He concluded by moving the resolutions of which he had given notice.—Mr. Entwisle commented upon the frivolous objections in some of the petitions against bills, and he saw no reason why the Standing Orders should be at all relaxed. He knew one instance in which a petition had been presented against a railway bill, on the ground of the subscription deed not having been signed in accordance with the Standing Orders: the fact being, that about forty of the subscribers had signed by power of attorney, and the sole object of the petition, as avowed, had been to put the parties to the expense of bringing up witnesses from Scotland and Ireland to prove the correctness and validity of those signatures. Parties who came forward to oppose others on the ground of non-compliance with Standing Orders, should comply with them themselves. He should therefore move, "That the word 'hereafter' be left out" of the resolution proposed by the hon. member for Lancaster.—Sir W. Heathcote had leaned to the amendment just proposed, but on consideration it occurred to him that, in justice to the parties whose petitions had first brought about the discussion, it could not be enforced. Had the enforcement of the Standing Order been in the first instance insisted on, those parties would have had time to amend their petitions, and put the name or short title of the bill at the heads of them, and they could then have been presented in time to be heard. But now, if they were precluded from a hearing, they would be too late to amend their error, or have their petitions brought forward again.—Mr. B. Escott said he thought the proposition was either a useless repetition of the rules of the House, or an improper interference with the rights of the petitioners. He thought that the matter too much affected one particular railway.—Mr. Gisborne begged to be permitted to offer a few observations, as he had previously been heard upon the late occasion, when it had been before the House. It had been urged that the Standing Order No. 111-a could not be enforced by the committee, because no penalty was attached to it. He could show them one or two, or rather, indeed, many others of those same Standing Orders to which there were no penalties attached. The House did not pretend to discover defects in the petitions when presented. Petitions were seldom even opened. It was not known whether there was a single signature attached to them. It was taken on the good faith of the member who presented the petition that it was what it professed to be. He (Mr. Gisborne) was one of those who thought the Standing Orders too stringent, and that they ought to be relaxed. But whilst they remained and were in force, the House should not take single cases of the sort then under consideration.—Mr. Strutt, as the first person who brought the matter under consideration, would observe that the Standing Order under consideration was of the same kind as all the other Standing Orders; and the hon. member for Nottingham had just stated that if there were no penalty attached to the Standing Order 111-a, neither was there any penalty attached to the others. But there was a penalty attached to the others, being no less than the loss of the bill, in the case in which the non-compliance should have been shown. The requirement of the Standing Order under consideration was important, viz., the prevention of mistakes in the case of petitions. He thought it desirable that the House should come to the resolution, and all that he objected to was that they should qualify it by the word "hereafter." As, however, the parties who had presented the petitions could have amended them had they been objected to at the table of the House in the first instance, and as it would be then too late for them to do so, he would vote against the amendment and in favour of the original motion.—Col. Anson thought that parties had had abundant notice of that rule. It had been a sessional order last year, and it had been made a Standing Order for

the present year, so that the notice had been quite sufficient. The House divided on the question, "That the word 'hereafter' remain part of the resolution;" when there appeared—For the motion, 105; against it, 63;—majority for the resolution, 42.

FEB. 17.—SELECT COMMITTEE.—Lord G. Somerset brought up the third report of the select committee on railways, which was ordered to be printed with the votes.

FEB. 18.—DEPOSITS.—Mr. Moffatt moved for leave to bring in a bill to alter and amend the Act 1 & 2 Vic. c. 117, as to the investment of railway deposits.—The Chancellor of the Exchequer had no objection to the introduction of the bill, and leave the discussion of it to an after stage.—Leave was given.

FEB. 19.—PRIVATE BILLS.—Mr. Greene moved the following resolutions;—
"That no notice for a committee on a petition for a private bill be received at the Private Bill Office which shall fix for the first meeting of such committee any day later than Friday, the 6th day of March next. That no notice of postponement of any such committee be received at the Private Bill Office except by the authority of the committee on petitions for private bills. That no private bill be read a first time later than the next day but one after the report of the committee on petitions, or of the Standing Orders Committee on such bill, as the case may be, shall have been laid on the table, except by special order of the House. That there be no more than fourteen clear days between the first reading of any private bill, not being a railway bill, and the second reading thereof, except by special order of the House. That no private bill, not being a railway bill, which shall now have been read a first time, shall be read a second time after seven clear days from this day, except by special order of the House."—Agreed to.

STANDING ORDERS.—Lord G. Somerset moved that the following paragraphs, 7, 8 and 9 of Standing Order No. 87, be repealed:—

7. The sufficiency or insufficiency for agricultural, commercial, manufacturing or other purposes, of the present means of conveyance, and of communication between the proposed termini, stating the present amount of traffic by land or water, the average charges made for passengers and goods, and time occupied.

8. The number of passengers, and the weight and description of the goods expected upon the proposed railway.

9. The amount of income expected to arise from the conveyance of passengers and goods, and in what proportion; stating also generally the description of goods from which the largest revenue is anticipated.

FEB. 20.—RAILWAY BUSINESS.—The O'Connor Don moved that the select committee on petitions should give priority of investigation to Irish railway bills which had proved compliance with the Standing Orders in the House of Lords.—Mr. O'Connell thought the proposition should extend to all private bills relating to Ireland.—Lord G. Somerset opposed the motion.—Mr. Strutt thought there should be no preference, but would support a proposal that one committee should consider Irish bills only.—Dr. Bowring suggested that it would be advantageous to take the Irish bills as soon as sanctioned in the House of Lords.—In this Sir J. Graham concurred.—After a desultory conversation, the O'Connor Don withdrew his motion.—Mr. Scrope complained of the inefficiency of the present modes of inquiry, and suggested a commission consisting of five of the most eminent men in the kingdom.—**THE GAUGES.**—In answer to Mr. Gisborne, Sir G. Clerk said that he was not prepared to say that the government was ready to make any proposition at present. The commission had presented a very voluminous mass of evidence, which was then in the hands of the printer. That evidence would have to be submitted to the government in its printed form, before any proposition could be laid before the House.—Mr. Hudson suggested the appointment of two or three additional committees, and that the Standing Orders of both Houses should be assimilated.

The sub-committees on Standing Orders, in consequence of two additional sub-committees on petitions for private bills having been appointed, is now arranged as follows :—

No. 1.—Mr. Strutt, chairman ; Mr. Robert Clive ; Mr. Villiers Stuart ; Mr. George Cavendish ; Mr. Brotherton ; Mr. Forbes ; Mr. Beckett.

No. 2.—Sir J. Y. Buller, chairman ; Mr. Bramston ; Mr. Richard Walker ; Mr. Bell ; Mr. Gibson Craig ; Mr. Eliot Yorke ; Mr. Kemble.

No. 3.—Mr. Aglionby, chairman ; Mr. Thornely ; Mr. Barneby ; Mr. Aldam ; Mr. Stansfield ; Mr. Broadley ; Mr. Edward Buller.

No. 4.—Sir W. Heathcote, chairman ; Mr. Hope Johnstone ; Mr. Morgan J. O'Connell ; Mr. Acland ; Mr. Evans ; Mr. Cornwall Legh ; Mr. Evelyn Philip Shirley.

No. 5.—Mr. H. Drummond, chairman ; Mr. Rice ; Mr. George Philips ; Mr. Packe ; Mr. Tatton Egerton ; The O'Connor Don ; Mr. Compton.

No. 6.—Captain Jones, chairman ; Mr. Pakington ; Mr. Wrightson ; Mr. Deedes ; Mr. Horsman ; Lord Worsley ; Mr. Childers.

STANDING ORDERS.—Mr. Strutt, the chairman of the committee No. 1, requested the attention of agents and parties to a point of Standing Orders, to which his (the chairman's) attention had been directed specially by the Speaker, who had informed him that in many cases it had hitherto not been attended to, and who had requested its enforcement. It was the Standing Order No. 111 A, and was as follows :—"That on every petition presented to this House relating to any private bill before the House, the name or short title by which such bill is entered in the votes be written at the beginning thereof ; and whether such petition be in favour of or against the bill, or relating to the non-compliance with the Standing Orders." He begged of all parties to observe that no petition whatsoever would for the future be received or listened to, if that Standing Order were not complied with.

The Select Committee on Standing Orders was nominated on the 10th instant, on the motion of Mr. Estcourt ; to consist of Messrs. Estcourt, W. Patten, Pendarves, W. Miles, C. Bruce, Ord, Sir R. Ferguson, and the chairman of the committee and of the sub-committees on petitions for private bills.

OFFICIAL PAPERS.

FIRST REPORT OF THE SELECT COMMITTEE OF THE HOUSE OF COMMONS ON RAILWAYS, PRESENTED FEB. 5.

THE Select Committee appointed to consider the mode in which the House shall deal with the railway bills proposed to be submitted to the House during the present session, and who are empowered to report from time to time to the House, have considered the matters referred to them, and agreed to the following Report :—

"That for the purpose of facilitating the dispatch of railway business during the present session, it is expedient that a portion of the railway bills should commence in the House of Lords. That with respect to any railway bills which, in pursuance of these resolutions, shall commence in the House of Lords during this session, this House will not insist on their privilege with regard to the clauses fixing and regulating rates and tolls in such bills. That with a view of affording early and increased means of employment in Ireland, it is expedient to give facilities for the early consideration of Irish railway bills. That, for the attainment of this object, it is expedient that all Irish railway bills should, in the present session, commence in the House of Lords. That it is expedient that all bills which compete with or ought

to be considered in connexion with any bills, the promoters of which shall prove themselves entitled to the privileges agreed to be granted in certain cases by the resolutions of this House of the 7th of July last, shall commence in the House of Lords. That the parties promoting railway bills which, by the above resolutions, are to commence in the House of Lords, may (notwithstanding any proceeding respecting such bills in the House of Lords) prove before the committee on petitions of the House of Commons that they have complied with the Standing Orders of this House, and the Report of such committee shall be ordered to lie on the table. If the committee should report that the Standing Orders have not been complied with, their Report shall be referred to the committee on Standing Orders, whose Report shall be ordered to lie on the table. That when a railway bill shall have commenced in the House of Lords, and shall be sent down to the House of Commons from the House of Lords, it shall be read the first time in the House of Commons, and shall then be referred to the committee on petitions, to ascertain whether the railway bill so sent down is substantially in accordance with the Standing Orders, as determined by the House of Commons."

SECOND REPORT FROM THE COMMONS' SELECT COMMITTEE.

The Select Committee appointed to consider the mode in which the House shall deal with the railway bills proposed to be submitted to the House during the present session, and who are empowered to report their opinion thereupon to the House, have further considered the matters referred to them, and agreed to the following Report:—

1. That a committee of five members be appointed, to be called "The Classification Committee of Railway Bills," and that three be the quorum of such committee.

2. That copies of all petitions for railway bills presented to the House be laid before the said committee.

3. That the committee of classification shall inquire and report what railway bills compete with, or ought to be considered in connexion with, any railway bills, the promoters of which shall have proved themselves entitled to the privilege agreed to be granted in certain cases by the resolutions of this House of the 7th of July last.

4. That the committee of classification shall form into groups all other railway bills which, in their opinion, it would be expedient to submit to the same committee.

5. That as soon as the committee of classification shall have determined what railway bills are to be grouped together, they shall report the same to the House, and all petitions against any of the said bills shall be presented to the House three clear days before the meeting of the committee thereon.

6. That no railway bill be read a first time later than the next day but one after the report of the committee on petitions, or of the standing order committee on such bill, as the case may be, shall have been laid on the table, except by special order of the House.

7. That there be not more than seven clear days between the first reading of any railway bill and the second reading thereof, except by special order of the House.

8. That the brieve of every railway bill shall be laid on the table of the House, and be printed and delivered one clear day before the second reading.

9. That such railway bills as shall have been read a first time before the House shall agree to these resolutions, shall be read a second time within seven clear days thereafter.

10. That such of the Standing Orders as relate to the composition of the committees on private bills, and the orders consequent thereon, be suspended so far as regards railway bills pending in the course of the present session.

11. That committees on railway bills during the present session of Par-

liament shall be composed of a chairman and four members, to be appointed by the committee of selection.

12. That each member of a committee on a railway bill or bills, shall, before he be entitled to attend and vote on such committee, sign a declaration that his constituents have no local interest, and that he himself has no personal interest for or against any bill referred to him; and no such committee shall proceed to business until the whole of the members thereof shall have signed such declaration.

13. That the promoters of a railway bill shall be prepared to go into the committee on the bill on such day as the committee of selection shall, subject to the order that there be seven clear days between the second reading of every private bill and the sitting of the committee thereupon, think proper to appoint, provided that the classification committee shall have reported on such bill.

14. That the committee of selection shall give each member not less than fourteen days' notice of the week in which it will be necessary for him to be in attendance, for the purpose of serving, if required, on a railway bill committee.

15. That the committee of selection shall give each member a sufficient notice of his appointment as a member of a committee on a railway bill, and shall transmit to him a copy of the twelfth resolution, and a blank form of the declaration therein required, with a request that he will forthwith return it to them properly filled up and signed.

16. That if the committee of selection shall not within due time receive from each such member the aforesaid declaration, or an excuse which they shall deem sufficient, they shall report to the House the name of such defaulting member.

17. That the committee of selection shall have the power of substituting, at any time before the first meeting of a committee, another member for a member whom they shall deem it proper to excuse from serving on that committee.

18. That power be given to the committee of selection to send for persons, papers, and records, in the execution of the duties imposed on them by the foregoing resolutions.

19. That no member of a committee shall absent himself from his duties on such committee, unless in the case of sickness, or by leave of the House.

20. That all questions before committees on railway groups or bills shall be decided by a majority of voices, including the voice of the chairman; and that whenever the voices shall be equal, the chairman shall have a second or casting vote.

21. That if the chairman shall be absent from the committee, the member next in rotation on the list (who shall be present) shall act as chairman.

22. That committees shall be allowed to proceed so long as three members shall be present, but not with a less number, unless by special leave of the House.

23. That if on any day within one hour after the time appointed for the meeting of a committee three members shall not be present, the committee shall be adjourned to the same hour on the next day on which the House shall sit, which had been fixed for that day.

24. That in the case of a member not being present within one hour after the time appointed for the meeting of the committee, or of any member absents himself from his duties on such committee, such member shall be reported to the House at its next sitting.

25. That each committee shall be appointed to meet on each day of its sitting, not later than twelve o'clock, unless by the regular vote of the committee.

26. That committees on railway bills have leave to sit in the present session, notwithstanding any adjournment of the House, if the committees shall so think fit.

27. That every committee on a railway bill shall fix the tolls, and shall determine the maximum rates of charge for the conveyance of passengers (with a due amount of luggage) and of goods on such railway, and such rates of charge shall include the tolls, and the costs of locomotive power, and every other expense connected with the conveyance of passengers (with a due amount of luggage) and of goods upon such railway; but if the committee shall not deem it expedient to determine such maximum rates of charge, a special Report, explanatory of the grounds of their omitting so to do, shall be made to the House, which special Report shall accompany the Report of the bill.

THIRD REPORT FROM THE SELECT COMMITTEE ON RAILWAY BILLS.

The select committee appointed to consider the mode in which the House shall deal with railway bills proposed to be submitted to the House during the present session, have further considered the matters referred to them, and agreed to the following Report:—

The number of petitions for railway bills, which have been presented this session, have been stated to your committee to amount to 562; viz.:—For railways in England and Wales, 395; Scotland, 120; Ireland, 47. As, however, many of these schemes may fail from non-compliance with the Standing Orders, the number of bills presented to Parliament may possibly fall considerably short of this amount, and your committee are of opinion that it will not be necessary or expedient, in the present session of Parliament, to refer mere projects to committees, as was done, owing to peculiar circumstances, in the last session.

From a statement prepared by the officers of the Board of Trade, it would appear that if the same principle of grouping which was adopted last year should be followed in the present session, the railway schemes in England and Wales might be formed into fifty-one groups, and those for Scotland into ten; about sixty-one select committees would therefore be required.

As the House has already ordered that all Irish railway bills and a certain limited class of English bills (the latter of which are included in the foregoing statement) should commence in the House of Lords, it is impossible to say how many of these may be sent down to the House of Commons. The number of groups into which railway schemes for the United Kingdom were divided last year was fifty-two; but, owing to various circumstances, only forty-five committees appear to have actually sat.

The necessity of considering so great a number of railway bills, in addition to other private bills, may certainly be expected to produce an unusual and inconvenient pressure upon the time of members of the House; but your committee trust, that as committees on railway bills may in this session begin to sit at an earlier period than in the last, it will not be found impracticable to constitute the requisite number of committees during the progress of the session.

Under these circumstances your committee have not deemed it advisable to recommend to the House to make any selection from, or to place any limitation on, the number of railway schemes to be submitted to the consideration of Parliament during the present session.

As your committee, however, believe that much of the time of the select committees on railway bills is consumed, with little public benefit, in minute and detailed inquiries into the amount of traffic and the probable profit to the projectors, your committee are of opinion that the Standing Orders on these points should be altered, and that it should no longer be obligatory on committees on railway bills to make special reports on them.

At the same time, your committee have no wish to fetter the discretion of the select committees to make such inquiries as they may judge proper with regard to population, and to the extent of accommodation that would be afforded to the public, where they consider such information to be required.

Your committee beg further to suggest, that power be given to select

committees to refer the consideration of any unopposed railway bill included in the group referred to them, to the chairman of Ways and Means, and the members ordered to prepare and bring in the bill, to be dealt with as other unopposed bills.

February 17.

**FIRST REPORT FROM THE SELECT COMMITTEE ON RAILWAY BILLS
CLASSIFICATION.**

The select committee appointed for the classification of railway bills according to the resolutions adopted by the House, and who are empowered to report from time to time, have considered the several matters referred to them, and agreed to report as follows :—

Your committee recommend that the following bills be referred to a distinct committee :—

ENGLAND.

GROUP No. 1.—London and York ; Direct Northern ; Eastern Counties (Cambridge and Lincoln line) ; Eastern Counties (Lincoln and Milford) ; Eastern Counties (March and Lincoln Extension) ; Cambridge and Lincoln Extension ; Eastern Counties (Hertford to Huntingdon) ; Ely and Huntingdon (Bedford Extension) ; Stamford and Spalding ; Midland Railway (Swin-ton to Lincoln) ; Manchester, Midland, and Great Grimsby Junction ; Sheffield and Lincolnshire Junction ; Sheffield and Lincolnshire Extension ; Doncaster, Wakefield, and Leeds ; Lynn and Ely (Extension to Spalding) ; Axholme, Gainsborough, Goole, and York and North Midland.

Your committee further recommend that the following bills be referred to a distinct committee :—

GROUP No. 2.—North Devon ; Tav Vale Extension ; Bideford and Tavistock ; Ashburton, Newton, and South Devon ; Dartmouth, Brixham, and Exeter ; Launceston and South Devon, No. 1 ; Ditto, No. 2 ; South Devon (Tavistock and other branches) No. 1 ; South Devon, No. 2.

Your committee further recommend that the following bills be referred to a distinct committee :—

GROUP No. 3.—Direct London and Portsmouth ; Guildford, Chichester, and Portsmouth ; Guildford, Chichester, and Portsmouth ; Guildford, Chichester, Portsmouth, and Fareham ; Epsom and Dorking.

THE BROAD AND NARROW GAUGES.

The following is the Report of the Gauge Commissioners :—

May it please your Majesty,—We, the Commissioners appointed by writ, under your Majesty's Privy Seal, bearing date the 11th July, in the ninth year of your Majesty's reign, to inquire whether, in future private Acts of Parliament for the construction of railways, provision ought to be made for securing a uniform gauge, and whether it would be expedient and practicable to take measures to bring the railways already constructed or in progress of construction, in Great Britain, into uniformity of gauge, and to inquire whether any other mode could be adopted of obviating or mitigating the evil apprehended as likely to arise from the break that will occur in railway communications from the want of a uniform gauge, beg dutifully to submit, that we have called before us such persons as we have judged to be, by reason of their situation, knowledge, or experience, the most competent to afford us correct information on the subject of this inquiry ; and we have required the production of such books and documents from the various railway companies as appear to us to be the best calculated to aid our researches.

We have personally examined into the usual course of proceeding on various railways both at home and abroad, especially those which are incident to a break, or interruption of gauge, and we have personally inspected several locomotive engines as well as mechanical contrivances invented, either for the general use of railways, or for obviating the special difficulties presumed to arise from the break of gauge, or otherwise connected with the subject of our inquiry, and, as we believe we have now carried our investigation to the utmost useful limits, we feel in a position dutifully to offer to your Majesty the following Report.

1. Our attention was first directed to ascertain whether the break of gauge could be justly considered as an inconvenience of so much importance as to demand the interference of the Legislature.

Gloucester is the only place where a break of gauge actually exists at the present time. It is caused by the meeting at that place of the broad or 7 feet gauge with the narrow or 4 feet 8½ inch gauge. There are other points, however, where a transfer of goods occurs similar to that which must result from a break of gauge, and persons well acquainted with railway traffic have no difficulty in foreseeing the nature of the inconvenience that would arise from any further intermixture of gauge; and we humbly submit the observations that occur to us as to the whole of this important part of the question.

We will divide the subject of the break of gauge under the following heads:—

- 1st, as applying to fast or express trains;
- 2dly, to ordinary or mixed trains;
- 3dly, to goods trains; and
- 4thly, to the conveyance of your Majesty's forces.

1st. Fast or express trains.

We believe that the inconvenience produced by a break of gauge will, in some respects, be less felt in these than in other trains, because the passengers travelling by fast trains are usually of a class who readily submit to many inconveniences for the sake of increased speed on the journey, and who are perhaps generally less incumbered with luggage than persons travelling by the slower trains; and as it is understood to be the general practice that no private carriages or horses are conveyed by these trains, the inconveniences of a break of gauge are reduced in this instance to the removal of the passengers and a moderate quantity of luggage; and, although such removal must create delay and some confusion, as well as personal discomfort, especially at night and in the winter season, besides the risk of a loss of luggage, yet we do not consider the break of gauge, in this instance, as being an inconvenience of so grave a nature as to call for any legislative measures, either for its removal or for its mitigation.

2dly. Ordinary or mixed trains.

In these trains the passengers considerably exceed in number those who travel by the fast trains, and they have generally a much greater quantity of luggage. To such travellers a change of carriage is really a serious inconvenience, and it is a well known fact that persons travelling by railways in communication with each other, but under different managements, endeavour to make such arrangements as to admit of their travelling by those trains which afford them the accommodation of occupying the same carriage from the beginning to the end of their journey.

The managers and Directors of railways are well aware of this feeling, and in some instances where they do not allow their carriages to run through, yet with a view of diminishing the inconvenience to which this exposes their passengers, they send a luggage van from terminus to terminus, to prevent the evil of a removal of the passengers' luggage; and some railway companies incur considerable expense in running trains of return empty carriages, in order to accommodate the public by enabling travellers to avoid a change of carriage on the journey.

It is by the ordinary or mixed trains that private carriages and horses are conveyed, and the removal of either from one truck or horse box to another, at any part of the journey, would be attended with inconvenience and delay; and, with regard to the horses, it would involve considerable risk.

We arrive, therefore, at the conclusion, that the break of gauge would inflict considerable inconvenience on travellers by the trains now under consideration, and that this inconvenience would be much increased at points of convergence of more than two lines.

The change of carriages, horse boxes, and trucks, and the transference of luggage of an entire train of much extent, must, even in the daytime, be an inconvenience of a very serious nature, but at night it would be an intolerable evil, and we think legislative interference is called for to remove or mitigate such an evil.

3dly. Goods trains.

From the statements made to us by carriers on railways, and from our own observation, we are induced to believe, that not only a considerable degree of care, judgment, and experience is necessary in the stowage of merchandise in railway waggons, but also, that it is desirable that when properly packed the articles should, generally speaking, not be disturbed until the journey is completed. We find that in the arrangement of merchandise, the heavier goods are placed at the bottom, and the lighter at the top of the load, and so secured as to prevent friction as far as practicable from the jolting of the waggons; and it is considered very desirable, with a view to prevent loss by pilfering, that the sheeting, which is placed over the load, should not be removed till the completion of the journey. Indeed, acting upon this principle, carriers find it profitable to send their waggons partially filled from various stations on the line, thereby increasing their toll to the railway company, rather than incur the risk of loss by theft, to which they would be exposed by uncovering the waggons on the journey, to fill up with intermediate local goods waggons that may have started with light loads from one of the termini.

The stations for re-arranging the goods trains are therefore as few as possible; thus, between Leeds and London, the points for unsheeting the goods waggons are only Derby and Leicester, and between Liverpool and London, the re-arrangement is confined to Birmingham and Rugby; and even at those stations the proportion of waggons which are uncovered is very small; indeed, it is stated that at the important town of Birmingham five-sixths of the waggons pass without re-arrangement.

In the conveyance of machinery and articles of a similar class, which are both heavy and delicate, it is of the utmost consequence that the load should not be disturbed between the beginning and end of the journey; a change of carriage, such as would result in all probability from a break of the gauge, would altogether prevent the transport of such articles by this mode of conveyance.

We believe that the traffic upon the line of railway between Birmingham and Bristol has been greatly restricted by the interruption of gauge at Gloucester.

In respect to the conveyance of minerals, the inconvenience of a break of gauge would be very serious; the transfer being attended with an expense which would be sensibly felt in consequence of the low rate of tolls charged on such articles; moreover, many descriptions of coal, such as a considerable proportion of that of the Midland Counties, are subject to great deterioration by breakage.

In regard to various articles of agricultural produce, the loss by removal would be less than on any other class of goods; much inconvenience, however, would be found in the transfer of timber; and the difficulty of shifting cattle would be so great as to present an insurmountable obstacle to such an arrangement, from the excited state of the animals after travelling by railway, and the resistance they in consequence offer when it is attempted to force them a second time into a railway waggon.

4thly. Conveyance of troops.

There is another use of railways which we have deemed it necessary to consider; we allude to the transport of your Majesty's troops, with their military stores, &c., either in the ordinary movements of corps through the country in the time of peace, or in the more pressing and urgent case of their movements for the defence of the coast or of the interior of the country.

We have carefully weighed the important information given to us by the Quartermaster-General of your Majesty's Forces, as well as by the Inspector-General of Fortifications, both officers of great experience; and we deduce from their opinions, that although a break of gauge on the line of route would produce both delay and confusion, yet that, as in time of peace it is usually practicable to give notice of the intended movements of a body of troops, the inconvenience of the break of gauge might be so reduced as not to be an evil of great importance; but, in the event of operations for defensive objects against an enemy, the inconvenience would assume a serious character.

It would appear, that for the defence of the coast, the proper course would be to retain the great mass of troops in the interior of the country to wait until the point selected by the enemy for his attack should be ascertained with certainty, and then to move upon that point such an overwhelming force as should be adequate to the emergency.

It is obvious that the success of such a system of defence must depend upon the means of conveying the troops with great dispatch, and without interruption on the journey.

The troops should be carried with their equipments complete in all their details, and with their artillery and ammunition; and it therefore appears indispensably necessary, in order to insure the requisite supply of carriages, where perhaps little or no notice can previously be given, that the whole should be conveyed in the same vehicles from the beginning to the end of the journey.

The effect of a break of gauge might in this view of the case expose the country to serious danger.

To all classes of merchandise, as well as to all military operations connected with railways, one general remark will apply, that in starting from any one point it is usually practicable to obtain a sufficient number of waggons for whatever may be required to leave that point, however irregular the traffic may be; but, at the converge of several lines, where the greater number might be of a gauge not corresponding to the gauge of the other lines, if it happened that all were unusually loaded at the same time, it would probably be impossible to provide on the latter an adequate number of waggons to carry off all the loads thus brought; the alternative would be, on the one hand, to submit to great confusion, delay, and inconvenience, on all the converging lines having the majority on the same gauge; or, on the other hand, to maintain on the lines being in the minority a very extensive stock of carriages, which in general would be totally useless.

There is one point which forcibly presses on our attention, and the truth of which must be readily acknowledged, but of which the importance is not at first equally obvious; it is, that the greater part of the inconveniences to which we have alluded are not inconveniences of rare occurrence, and which would affect only a small number of persons, but, on the contrary, that many of them would occur several times in the course of every day to a great number of persons at each point at which a break of gauge might exist. The cumulative amount of such inconvenience would of necessity be very considerable, and we feel bound to sum up our conclusions by stating that we consider a break of gauge to be a very serious evil.

II. We are now brought to the second stage of our inquiry, which is, to

discover the means of obviating or mitigating the evils that we find to result from the break of gauge.

The methods which have been laid before us, as calculated for this purpose, are as follows:—

1. What may be termed telescopic axles; an arrangement of the wheels and axles of carriages, permitting the wheels to slide on an axle, so as to contract or extend the interval between them in such a manner that they may be adopted to either of the gauges.

2. A form of truck adapted to the broad gauge, but carrying upon its upper surface pieces of rail 4 feet 8½ inches asunder, so that a narrow gauge carriage may be run upon these rails without any disturbance of its wheels.

3. A method of shifting the bodies of carriages from a platform and set of wheels adapted for one gauge, to a different platform and set of wheels adapted to the other gauge.

4. A proposal to carry merchandise and minerals in loose boxes, which may be shifted from one truck to another, and of which only one would probably be carried upon a narrow gauge truck, while two would be conveyed on a broad gauge truck.

Of these various methods, the first—if it admitted of being used safely and extensively, would be, in its application, the easiest of all. By the operations of detaching the wheels from one limiting hold, of pushing the carriage along converging or diverging rails, until the wheels were brought to the required width, and of then connecting them by another limiting hold, the transformation of the narrow gauge carriage to the broad gauge carriage, or *vice versa*, would be completed. But this construction is liable to grave objections. It is stated to us as a matter of experience, (and we believe it admits of satisfactory explanation,) that a very small unsteadiness of the wheels of a railway carriage upon the axle renders the carriage liable to run off the rails. A far more serious objection, however, is, that the safety of a carriage and the whole train with which it is connected would depend upon the care of the attendant who has to make the adjustments of the axle-slide.

It is true that there are other cases, as in the attendance on the switches and signals, which depend upon the care of the person who is stationed to work them; but the circumstances differ very widely. In these cases, the attendant has a single act to perform (or at the utmost, two acts only); he is not hurried, and his whole attention is concentrated on very simple duties.

In respect to the shifting axles, the attendant would have to adjust a great many carriages in succession (as there are sometimes a hundred waggon in a goods train), and adjustment must be made hurriedly, and often in the night, and the attendant's thoughts would probably have been partly occupied with the loading of goods and other station arrangements.

On the score of danger, therefore, we think that this construction must be at once abandoned. But we think it proper to add, that if even there were no such essential ground of objection, a construction of this nature could not be adequately useful unless it were extended to every carriage which is likely to pass the station where the break of gauge occurs. Under the existing system of interchange of carriages, which is adopted by all the railway companies whose lines communicate, and of which the advantages are recognised in special clauses of the acts of Parliament applying to several railways, carriages belonging to distant railways will frequently be found at the place of junction of the two gauges. This construction, therefore, would lose much of its utility unless every railway carriage were made in conformity to it, that is, unless a vast expenditure of capital, and a corresponding annual expense in replacing worn-out carriages, &c., were incurred even on railways very distant from the break of gauge.

2. The plan of placing a narrow gauge carriage upon the top of a broad

gauge truck has, on the face of it, this obvious difficulty, that a broad gauge carriage cannot be placed in the same manner upon a narrow gauge truck, and therefore, unless not only the broad gauge railway, but also all others communicating with it, be furnished with trucks proper for carrying narrow gauge waggons, and with narrow gauge waggons also, and unless the loads travelling towards the narrow gauge be placed only in these narrow gauge waggons, the system effects nothing as regards the passage in one direction. But even with regard to the passage from the narrow gauge to the broad gauge, the system will not bear examination. If the trucks are supported on springs there is practically a difficulty in running the waggons upon them; and if they are not supported on springs, they will sustain great injury on the journeys. If they are loaded singly there will be a great delay; if they are placed in a row, and the narrow gauge carriages are run through the whole series, very great caution will be necessary to secure each carriage both in front and in rear. When heavy loads are thus placed in elevated positions, and when the security of each depends upon adjustments hurriedly made, there will be the danger to which we have alluded in noticing the first proposed construction. Finally, an enormous amount of dead weight will be carried on the broad gauge line. We reject this proposal as entirely inapplicable to the traffic of railways.

3. The system of shifting the bodies of carriages from road wheels to railway wheels is practised successfully in France, where the diligences from Paris to distant towns, proceeding from the Messagerie of Paris to the railway station are carried on a peculiar railway truck as far as Rouen and Orleans, and are then again placed on road wheels to continue their journey. At the low speeds of the French railways this system is safe; but we doubt whether it would be safe with the speeds of the English railways. Moreover, it deprives the railway system of one of its greatest conveniences; namely, its readiness to receive almost any number of passengers without warning, and to carry them to any distance, small or great. Carriers' carts are also conveyed (but to no great amount) in the same manner. In France, as we understand, it is not thought likely that the system will be in any degree retained when those railways shall have been extended further. The same remarks, we conceive, would apply entirely, or in a great measure, to similar proposals for the shifting of the bodies of railway carriages; but as this plan has never been strenuously urged, it is unnecessary to criticise it more minutely.

4. The system of conveying goods in loose boxes, carried upon railway trucks, has been seriously discussed. It has been repeatedly tried, and we are able therefore to give an opinion on it, founded on experience.

The result of this experience is, that in one instance of a temporary character, where the whole operation was under the control of one engineer, it succeeded: in other instances, although always under the control of one engineer or one company, it has usually failed; and these failures have occurred where from the deterioration, caused by hand shifting, to the mineral conveyed, it was matter of anxiety to avoid transference of the load from one box or waggon to another, and where no expense was spared in the erection of machinery proper for the transference of the loose boxes.

These failures, it is to be remarked, occurred in a traffic which is comparatively regular, viz., that of coal; in traffic of a less regular character the causes tending to produce failure would be very much more numerous.

We consider that this method is totally inapplicable to remedy the inconvenience of a break of gauge.

Some of the witnesses whom we have examined are of opinion that there would be less difficulty in unloading the waggons of one gauge, and placing the articles in waggons of the other gauge, by having two rows of waggons on the different gauges, marshalled alongside of each other; but having witnessed this process at Gloucester, we are of opinion that such a system is totally inapplicable to an extended traffic.

We sum up our conclusions on this head, by stating our belief that no method has been proposed to us which is calculated to remedy in any important degree the inconveniences attending a break of gauge.

III. Considerations on the general policy of establishing a uniformity of gauge throughout the country.

We approach this momentous question with a full conviction of its importance, and the responsibility that rests upon us.

That an uniformity of gauge is now an object much to be desired, there can, we think, be no question. In the earlier period of the railway history of this country the great trunk lines were so far separated as to be independent of each other, and, as it were, isolated in their respective districts, and no diversity of gauge was then likely to interfere with the personal convenience or the commercial objects of the community; but now that railways are spreading in all directions, and becoming interlaced with each other in numerous places, that isolation is removed, that independence has ceased, and the time has arrived when, if steps cannot be taken to remove the existing evil of the diversity of gauge, at least it appears to us imperative that a wider spread of this evil should be prevented.

If we had to deal with a question not affecting the interests of parties, who are not only unconnected, but who are opposed to each other in a spirit of emulation, if not of rivalry; or if we were dealing with the property of the public, and not of private trading companies, we should merely have to consider whether that uniformity of gauge which we deem to be so desirable would be too dearly purchased by an alteration of one gauge to suit the other, or of both to some fresh gauge which might be considered preferable to either, if any such there be.

But our position is different from this, since we have to consider not only the relative length of the different systems, the comparative mechanical efficiency of each, the general superiority of one above the other, their adaptation to the wants of the country, and the possibility as well as the policy of a change, but also the pecuniary means of effecting it. We have further to look to the consequences of an interruption of the traffic during the progress of an alteration.

There is still another view of the question, and that is, the expediency of having, on lines of railway, additional rails, so as to afford the facility of using engines and carriages on both gauges.

This expedient, in whatever form adopted, cannot be considered as free from difficulties. If two rails, forming a narrow gauge way, are placed between the two rails which form a broad gauge way, carriages of the different gauges may run in the same train, without alteration even of their buffers, which in the ordinary construction of the carriages correspond exactly on the broad and narrow gauges. But the expense of such an insertion would probably be not less than that of an entire change of gauge, including, in the latter, the change of engines and carrying stock; and the complication which it would introduce at the crossings might produce danger to rapid trains, unless their speed were diminished at approaching such points. The difficulty of packing the rails, if longitudinal sleepers were used, would also be much greater than if rails of only a single gauge were employed. If a single rail were inserted eccentrically in a broad gauge way, so as to form, in conjunction with one of the broad gauge rails, a narrow gauge way, the expense of the insertion, and the danger of the crossings, as well as the difficulty of packing the rails, would be somewhat diminished, but it would be imprudent to run carriages of the different gauges in the same train; and as it would probably be the policy of the railway company to adopt for their own stock of engines only one of the two gauges, and to interpose those difficulties which amount to a prohibition of the use of other companies' engines, the inconveniences of a break of gauge would exist in almost all their force at every junction of a branch railway on a different gauge.

We consider, therefore, that the general adoption of such a system ought not to be permitted.

We remark, however, that the difficulties to which we have alluded may be greatly diminished on any railway where the system of combined gauges is cordially taken up by the company; and we think that great respect ought to be paid to the rights which the companies may be supposed to possess in the methods or systems which they have devised or adopted. At the same time, we lay it down as the first principle, that inter-communication of railways throughout the country ought, if possible, to be secured. If, to obtain the last-mentioned object, it should be necessary to alter or make a change in any existing railways, we think that it may be left as a matter of ulterior consideration for the Legislature, whether in these limited instances the combination of gauges may not be allowed.

Whatever may be the course which at the present time circumstances will permit, it will appear from the opinion we have expressed, that we think, abstractedly, equalization desirable; and we shall therefore proceed to consider what gauge would be the best in such a system of equalization.

We shall examine this part of the question under the following heads:—

1. Safety.
2. Accommodation and convenience for passengers and goods.
3. Speed.
4. Economy.

1. We will commence with the question of safety.

We are of opinion that experience will, in this matter, afford a better test by which to compare the systems of the broad and the narrow gauge than any theory; and we therefore have made inquiry into the nature of the accidents recorded in the official reports of the Board of Trade, as well as of such as have happened since the last report was published.

We find that railway accidents arise from collisions, obstructions on the road, points wrongly placed, slips in cuttings, subsidence of embankments, a defective state of the permanent way, loss of gauge, broken or loose chairs, fractures of wheels or axles, &c.; and, lastly, from engines running off the line from some other cause.

Of these several classes of accidents, all except the last are obviously independent of the gauge; and with reference to this last class, we have thought it right to endeavour to determine whether the advocates of either gauge could fairly claim, in regard to these accidents, a preference for their respective systems, on the score of greater security to the traveller. In these lists, we find only six accidents of the kind we are considering, recorded from October, 1840, to May, 1845, whereas there have been no less than seven within the last seven months, and these are all attributable to excessive speed, the majority having happened to express trains. Of the whole number of these accidents, three have occurred on the broad gauge and ten on the narrow; the former, however, differ in their character from the latter, the carriages only, in the last two cases, having been off the line, whereas, in all the ten narrow gauge cases, the engines have run off, and the consequences have been more fatal. We must here observe, however, that the extent of the narrow gauge lines is 1,901 miles, and that of the broad only 274; therefore the comparison would be unfavourable to the broad gauge if considered merely with regard to their relative length; but it must be borne in mind that the general speed of the Great Western considerably exceeds that of many of the narrow gauge lines, and that some consideration is on that account due to the broad gauge.

The primary causes of engines getting off the rails appear to be over driving, a defective road, a bad joint, or a badly balanced engine. If in consequence of heavy rains or other unfavourable circumstances, any part of the road becomes unsound, the engine sinks on one side as it passes along such

part of the rail, suddenly rises again, and is thus thrown into a rocking and lateral oscillatory motion, with more or less of violence according to the rate of speed, and a very similar effect is produced in passing at high speeds from one curve to another of different curvature. A succession of strains is thus thrown upon the rails, and if, before the rocking subsides, the wheel meets with a defective rail or chair, which yields to the impulse, the engine and train are thrown off as a necessary consequence; but, as far as we can see, such casualties are equally likely to happen on either gauge, other circumstances being similar.

It has indeed been stated by some of the witnesses whom we have examined, that the broad gauge is more liable to such accidents, from the circumstance that the length of the engine, or rather the distance between the fore and hind axle, is less in proportion to its breadth than in the narrow gauge engines, and that therefore the broad gauge engine is liable to be thrown more obliquely across the lines, and in case of meeting with an open or defective joint, more liable to quit the rail; but we cannot admit the validity of this objection against the broad gauge line. It may be that the proportion between the length and breadth of the engine has some influence on its motion, and that the motion is somewhat less steady where the difference between the length and breadth is considerably diminished; but practical facts scarcely lead to the conclusion that the safety of the trains is endangered by the present proportion of the broad gauge engines; for it appears that on the London and Birmingham Railway, where the engines hitherto employed have been generally short four-wheeled engines, the distance from axle to axle not exceeding seven feet, or seven feet six inches, no such accident as we are considering has been reported; and we are informed by Mr. Bruyeres, the superintendent of that line, that no such accident has ever occurred. The same remark applies to some other narrow gauge lines; and if, as has been stated, exemption from these accidents has resulted from the close fixing of the engine and tender adopted on this line, the same system might be adopted on any other line, whether on the broad or narrow gauge. An evil may also sometimes arise in six-wheeled engines, by the centre of gravity of the engine being brought too much over the driving wheels, and the springs being so adjusted for the sake of the adhesion of the wheels to the rails, that the front wheels would have little or no weight to support, and would be thus in a condition, by any irregularity in the road or other obstruction, to be more easily lifted off the rails. But here again, if this fault in the construction or adjustment has been anywhere committed, it is a fault or defect wholly unconnected with the breadth of gauge.

Another cause of unsteady or irregular motion, dangerous to the safety of the train, has been stated to be the great overhanging weight beyond the axles of some engines of recent construction, and of the weight of the outside cylinder beyond the axle bearings. So far as this construction is concerned it certainly appertains to narrow gauge lines only; but at the same time we must remark, that it is not essential to their working.

Upon the whole, therefore, after the most careful consideration of this part of the subject, we feel bound to report, that as regards the safety of the passenger no preference is due, with well proportioned engines, to either gauge, except perhaps at very high velocities, where we think a preference would be due to the broad gauge. On this part of the subject we would beg to point to the nature of the evidence of Mr. Nicholas Wood.

2. We have now to advert to the question of the relative accommodation and convenience for passengers and goods.

The first-class carriages of the broad gauge are intended to carry eight passengers in each compartment, and the compartments are sometimes subdivided by a partition and inside door. On the narrow gauge lines the first-class carriages are usually constructed to carry only six pas-

passengers in each compartment; and we find that about the same width is allowed for each passenger on both gauges. Some of the original mail-carriages were adapted for four passengers, and we believe that the public had a preference for these carriages over both the other descriptions.

Until lately, the broad gauge carriages were altogether more commodious than those of the narrow gauge, but recently carriages have been introduced on several of the narrow gauge lines nearly as lofty as those on the broad gauge, and equally commodious; in short, we now see no essential difference as regards accommodation and convenience to individual passengers in the first-class carriages of the two gauges.

In the second-class carriages on the broad gauge, six persons sit side by side, each carriage being capable of holding 72 passengers. On the narrow gauge generally, only four persons sit side by side, the total number in each carriage being 32; in this respect we are inclined to consider the latter are more comfortably accommodated.

With reference to the ease of the carriage, and the smoothness of the motion, we have had very contradictory evidence, and it must be admitted that great difference is experienced on the same line at different times, depending upon the state of the road, the springs of the carriage, the number of persons in a carriage, to bring the springs into action, the position of the carriage in the train, and the speed at which the train is propelled, all of which conditions are independent of the breadth of the gauge. We have, however, with a view of making our observations on this question, travelled several times over all those lines having their stations in London, and after making, to the best of our judgment, every allowance for the circumstances above-mentioned, we are of opinion that at the higher velocities the motion is usually smoother on the broad gauge.

It is now to be considered whether either gauge has a superiority over the other in regard to the conveyance of general merchandise.

Under this head we class manufactured goods and their raw materials, mineral products, such as coal, lime, iron, and other ores; agricultural produce, such as corn, hops, wool, cattle, and timber.

On these points we have taken the evidence of persons well acquainted with the carrying trade, and from their information, and our own observation, it does not appear to be of consequence to the parties sending or receiving goods whether they are transmitted in waggons containing five or six tons, or in waggons of larger capacity, provided that the cost and security are the same, and that the carriers undertake the responsibility of any damage that may result from the size of the load. But Messrs. Horne and Chaplin, and Mr. Hayward, who are largely interested, and have had great experience in the carrying trade, have expressed a strong opinion that the smaller waggon is far the more convenient and economical. The same opinion is still more strongly expressed by those witnesses we have examined who have experience of our mineral districts. These persons state that the smaller waggon can be more easily handled, and can be taken along sharper curves than would be suited to a broader waggon; that such sharp curves are very common in mineral works and districts, and that the broken nature of the ground would render curves of greater radius inconvenient and expensive.

Another important difference between the two gauges, in this commercial view of the question, would present itself in localities in which there may be a difficulty of readily obtaining full loads for the waggons at road stations. Here the defect of the dead weight, which we find to apply more particularly to the broad gauge, would be greatly increased, unless another evil of still greater commercial importance were created, that of detaining the waggons to receive full loads. On the whole, therefore, we consider the narrow gauge as the more convenient for the merchandise of the country.

3. We now come to the important consideration of relative speed.

With a view to form our judgment on this subject, we have examined the time-tables of the several companies having express and fast trains, and the returns furnished by those companies of the actual speeds attained by the express trains, on 30 successive days, from the 15th of June to the 15th of July, 1845.

We have also, on various occasions, travelled in the express trains, and noted the speed, mile by mile.

The result has been, that we are fully satisfied that the average speed on the Great Western, both by the express trains and by the ordinary trains, exceeds the highest speed of similar trains on any of the narrow gauge lines. But some of the latter have trains which exceed in speed the corresponding trains of the Bristol and Gloucester line, and also of the Swindon and Gloucester line, both of which are on the broad gauge; but these latter, it is to be remembered, are still of recent construction, with unfavourable curves and gradients; and we have been informed by Mr. R. Stephenson, in his evidence, that at one period the speed on the Northern and Eastern line even exceeded that of the Great Western.

In treating of a difference in the speed, other circumstances besides the mere gauge must be considered. The inclinations and curves of the Great Western Railway, between London and Bristol, and even for 40 miles beyond Bristol, are, with the exception of the Wootton-Basset and the Box inclines, particularly favourable to the attainment of high velocities; and it is important to remark, that the inclinations and curves on that part of the Northern and Eastern Railway where the competition in speed with the Great Western was the most successful are generally of a similar character.

One of the principal motives professed for constructing the Great Western Railway on the broad gauge was the attaining of high speeds, and the credit of the proposers and defenders of that construction has therefore been deeply engaged in maintaining them.

The effect of gradients on the speed of the Great Western trains, even with the powerful engines used on that line, is shown in the Time Table, page 24, where we find that while the speed from Paddington to Didcot by the express train is $47\frac{1}{2}$ miles per hour, from Didcot to Swindon it is only 41.1, and from Swindon to Gloucester only 31.7; from Swindon to Bath it is 48.2, but returning only 37.2; from Bristol to Taunton the speed is 46.3, and from Taunton to Exeter only 39.2.

We must observe, however, that while the Great Western Company have not altered in any degree the plan of their engines, the higher velocities of the narrow gauge lines have been attained by the introduction of a more powerful kind of engine than was employed at an earlier period, and probably the new engines now used on the narrow gauge lines are as powerful as they can well be made within the limits of their gauge; whereas the broad gauge lines have still a means of obtaining an increase in the power of their engines and of increasing their speed, provided the road be in a condition to sustain the great increased force which must result from any increased weight of the engine moving at such high velocities.

Whether the permanent way is in such a state at present is very questionable, or even whether it be possible in all vicissitudes of weather to maintain it in such a condition. We ought not to lose sight of the fact, that since the introduction of express trains the accidents arising from engines running off the line have been much more common than in former years; indeed, these accidents have been more numerous within the last seven months than within the preceding five years, and it is questionable whether this contest for speed ought to be carried to any greater length. We are, indeed, strongly inclined to the opinion stated by several engineers in their evidence, that it is the stability of the road, and not the power of the engine, that will prescribe the limits of safe speed.

On the first introduction of passenger railway speeds of about 12 miles per hour only were anticipated; the rails then employed weighed only 35 lbs.

per yard, and the engines about six or seven tons. As soon as speeds of 20 and 24 miles per hour were attempted, it was found necessary to have rails of 30 lbs. per yard, and engines weighing 10 and 12 tons. Since that time the rails have been increased in weight progressively to 65 lbs., 75 lbs., and 85 lbs. per yard, and the weight of the engine on the broad gauge exceeds 22 tons, and on the narrow gauge it now approaches 20 tons; indeed we have seen a narrow gauge engine on six wheels weighing 30 tons. We doubt, however, whether a corresponding stability has been attained in the road itself.

Amongst other changes for increasing the power of the engine and the speed of the trains of the narrow gauge lines, there have been the giving an increased length to the engine, and the placing the cylinders on the outside of the framing; but it is the opinion of some of the witnesses we have examined, that this position of the cylinder has a tendency to produce a greater wear and tear of the journals, and a consequent rocking and irregular motion of the engine on the line. This, however, while the engine is of medium length, has been denied by Mr. Locke, who has had great experience in the working of outside-cylinder engines. But it is stated by Mr. Gray and Mr. Gooch, that where the length of the engine is greatly increased, this increased length, by causing the extremities of the engine to overhang very considerably the fore and hind axles, has a great tendency to increase the irregular motion produced by the outside cylinder.

Mr. R. Stephenson admits that in some of the later engines this irregularity does exist, but he attributes it to the weight of the piston and its appendages, observing, "I do not believe that it is the steam that causes the irregular action, but I believe it to be the mere weight of the pistons themselves, and therefore if we could contrive to balance the piston by the weight upon the wheels, we should get rid of that very much."

At all events, from whatever cause the motion may arise, the oscillations are very considerable in some of these long engines, and such as can scarcely be considered safe at high velocities.

This great length of engine is, however, by no means essential to the attainment of high speeds on narrow gauge lines.

We found by timing the express trains on four different journeys on the South Western line, in both directions, that the whole distance was performed very satisfactorily in about 1 hour and 52 minutes, including the time of two stoppages, being at an average rate of 41 miles per hour, on a line which, in one direction, rises for a length of more than 40 miles on a very prevailing gradient of 1 in 330; and in the other rises for several miles on a gradient of 1 in 250. On each occasion a distance of five miles on a level part of the road was passed at the rate of 53 miles per hour.

The length of the engine boiler was only eight feet seven inches, the driving wheels six feet six inches in diameter; the leading wheels had both inside and outside bearings. The diameter of the cylinder in one case was 15 inches, in the others 14½ inches, both outside, and attached to the smoke-box.

In proceeding to compare the locomotive engines, we remark in the first place, that the fire-boxes, boilers, &c., of the narrow gauge engines still possess a smaller evaporating power than those of the broad gauge engines, although recent attempts have been made to raise the former to the level of the latter; but those attempts have not succeeded; and it is indisputable, that whatever can be done for the narrow gauge, in this respect, can be surpassed on the broad gauge. And we concur in opinion with many of the ablest engineers, who have stated, that the engines of both gauges have nearly obtained the speed and power which it would be justifiable to employ in reference to the present strength of the rails and the firmness of the earthworks.

We remark, in the next place, that the diameter of the driving wheels of the broad gauge engines is greater than that of the driving wheels of the narrow gauge engines, and although in many of the narrow gauge

engines the use of the external cylinder has enabled the manufacturers to bring the boilers nearer to the driving wheel axles, and has thus permitted an increase of the diameter of the wheel, still it is always in the power of the constructors of broad gauge engines to make a corresponding change, and thus to maintain the superiority; for the larger diameter of the wheel is unquestionably favourable to high speed, both because the steam is used to greater advantage, and because the alternating shocks upon the machinery are less rapid. It is, however, extremely difficult to say at what speeds this advantage becomes appreciable. We think it likely that, as far as the speed of 40 miles an hour, there is no great difference between the two, but that for speeds of 50 or 60 miles an hour the difference may be worthy of notice. It becomes important, then, to inquire what may be the greatest speed that will probably be desired or maintained on railways for ordinary purposes.

It is certain that the wishes of the public will be limited only by considerations of economy and safety. The greater the speed the greater will be the cost; and it appears to be the opinion of many of the officers of railways, that it would be difficult to maintain with safety the present express speeds upon the great trunk railways.

The chief impediments to maintaining the present express speeds are,—

1. The difficulty of arranging the trains, where the traffic is frequent, so that the fast trains shall be entirely protected from the chance of interfering with or coming into collision with the slower trains, or those that stop at numerous stations.

2. The difficulty of seeing signals, especially in foggy weather, in time to enable the engine-driver to stop the fast trains.

We feel it a duty to observe here, that the public are mainly indebted for the present rate of speed, and the increased accommodation of the railway carriages, to the genius of Mr. Brunel, and the liberality of the Great Western Railway Company.

As regards the applicability of the atmospheric principle of traction, or of any other principle differing from the locomotive, we see no difference between the two gauges.

4. The question of economy is that which next demands our attention.

Under this head we have to consider the cost of construction, the purchase of the plant, which consists of engines, of carriages, and of other carrying stock; and lastly, the cost of working.

There can be no question, that, in the first construction of a railway, the narrower the gauge, the smaller will be the cost of the works. This applies to tunnels, bridges, viaducts, embankments, cuttings, sheds, workshops, turn-tables, transverse sleepers, and ballast, and the purchase of land; but it does not affect the rails, fences, drains, and station-houses. The exact difference, however, must depend in a great degree upon local circumstances, and no opinion can be given of the precise ratio of difference without going into a very minute calculation of each line on which the two systems are to be compared; for instance, in a line free from tunnels or viaducts, and in a flat country, where there are neither cuttings nor embankments, the difference would be limited very nearly to the quantity of land to be purchased (the severance and damage being about equal in both cases), the amount of ballasting, and some increase in the cost of the sleepers; whereas, in a very undulating country, the difference would be more considerable.

As to the cost of the maintenance of way, supposing the construction to be the same, that of the broad gauge must be rather the greater of the two.

In respect to the cost of the engines and carrying stock, we have to observe that they are generally more expensive on the broad than on the narrow gauge. But, on the other hand, it is asserted by the advocates of the broad-gauge system, that as the engines will draw greater loads, as the carriages will accommodate a greater number of passengers, and as the waggon are capable of conveying a larger amount of merchandize, the work can

be and is done at a less charge per ton, and that a compensation is thus obtained for the increased outlay. How far this is found to be practically the case is the next subject for inquiry.

We were very desirous, if it had been found possible, thoroughly to investigate this part of the subject by means of the official data called for by us, and furnished by some of the principal companies, containing a statement of their working expenses; but we find the circumstances so different, that very little satisfactory information can be thus obtained, that has been obtained, that has strictly a reference to the economy of the two gauges. There are, of course, various matters that have an influence on the actual cost of locomotive power and general traffic charges, that are in no way connected with the breadth of gauge; such as the nature of the curves and gradients, the price of coke, the general nature of the traffic, the mode of working that traffic as adopted by different companies, the employment of engines of greater or less power, that increased accommodation to the public which involves an extra expense for return carriages, &c.

The London and Birmingham, and the Great Western Railway, as metropolitan lines of great traffic and of considerable length, would at first sight appear to furnish the best means of comparison, and there is, in fact, no difficulty in comparing the actual expenses; but these lines differ essentially in the character of their gradients, and in the amount of traffic, estimated at per mile, and above all, they differ in the character of the engines they employ.

The London and Birmingham Company have, from the commencement, persevered in the use of light four-wheeled engines, while the Great Western, availing themselves of the facilities their gauge affords, have adopted large and powerful engines, which are worked at nearly the same cost per mile as the former; and if such engines as those on the London and Birmingham line were essential to the narrow gauge, the question, as to the economy of working, might be at once decided in favour of the broad gauge; but this is by no means the case: several narrow gauge lines employ engines of great power, and work, in consequence, much more cheaply than the London and Birmingham; therefore, the comparison between the working expenses of this line and of the Great Western can only be considered as a test of the principle of working with light and with heavy engines, and not as furnishing a test of the working economy of the two gauges.

It is a common practice with different railway companies, in their half-yearly reports to their proprietors, to state the per centage of their various expenses, under a few distinct heads, as compared with their revenue; and from these it appears that, on the Great Western, the locomotive charges, during a period of three years, have varied between 8·8 and 11·1, averaging 9·7 per cent. on their income; and on the London and Birmingham they have varied, within the same period, between 7·9 and 10·36, averaging about 8·6 per cent. on their income; and, therefore, on a superficial view of the question, the London and Birmingham would appear to have worked their line at a cheaper rate; but valid objections have been made to this comparison on the part of the Great Western; because it is obvious, from the several returns we have received, that the London and Birmingham Company has far the more abundant traffic per mile, and ought, therefore, to be expected to perform its work at a less per centage on its income. It has been stated by Mr. Gooch, that as locomotive superintendent on the Great Western, he is called upon to supply a certain amount of locomotive power, and that the cost of such power is almost entirely irrespective of the load or number of passengers it is made to draw; but that these numbers are of great importance in comparing the locomotive expenses with the revenue.

In page 27 of the appendix to this report, an abstract and comparative table are given, founded on returns furnished by the Great Western and London and Birmingham Railway Companies, showing that the revenue derived from the passengers' train is 64 per cent. greater per mile worked on

the latter than on the former line. It must, therefore, be obvious that, as a test of economy for working, we cannot adopt the principle of a per centage on the revenue, neither will the cost per mile run give a more just comparison as to the economy of the two systems, because it is a well-known fact that the London and Birmingham Company have been conveying their traffic with engines of inadequate power, and that great economy would result to them by the adoption of larger engines.

Other difficulties also occur in the comparison of these expenses on different lines, in consequence of the difference in the form of the accounts, and of the circumstance of one company adopting the principle of having a reserve fund for renewals, and other companies having no such fund.

We are, therefore, of opinion that the most satisfactory comparison that can be made of the economy of working the two gauges, will be by applying to first principles, endeavouring merely to determine what the working expenses of the Great Western line, with their present amount of traffic, would have been, provided it had been made a narrow gauge line, and worked with such engines as those employed on the South Western and some other narrow gauge lines.

The average weight of a passenger-train on the Great Western Railway (independent of the engine and tender, which weigh 33 tons) appears, by the returns sent to us, to be 67 tons; and the average number of passengers per train for the half-year ending the 30th of June, 1845, as appears by our comparative table, page 27, is only 47·2, whose weight, including their luggage, may be estimated at about 5 tons.

Mr. Gooch estimates each carriage and its passengers on the broad gauge to weigh about 9½ tons, and, therefore, there would be seven carriages to make up the 67 tons above specified. The most commodious carriages on the narrow gauge lines, such as those on the South Western, weigh less than 5 tons; seven such carriages would, therefore, weigh about 34 tons, and being capable of containing 126 first-class passengers, weighing, with their luggage, 12½ tons, the total load would be only 46½ tons. Now we find, that even with a traffic as large as that of the London and Birmingham Railway, the average per train would only be 84·9 passengers, weighing about 8 tons; so that, under the supposition of a traffic of this extent, the load of the seven narrow gauge carriages so occupied would only be 42 tons.

But Mr. Gooch estimates, from his own experiments, the relative powers of traction of the broad gauge engines, and of the narrow gauge engines of the South Western Railway, when working at the same speed, as 2,067 to 1,398, or as 67 per cent., the load of the broad gauge in tons, to 45 tons, which would be the corresponding load for the narrow gauge, so that the narrow gauge engine has more power over the 42 tons it would have to draw than the broad gauge has over its average load of 67 tons, both exclusive of the weight of the engine and tender, the narrow gauge carriage in this supposition being supposed to contain 84·9 passengers, and the broad gauge only 47·2.

If, however, it were necessary, 224 first-class passengers might be placed in the seven broad gauge carriages, and, as it has before been said, 126 in the seven narrow gauge carriages; but it appears likely that this extent of accommodation would only be called for on such rare occasions, that the question of providing for it, except by assistant power, cannot be taken into consideration in the present comparison.

It is obvious, from the foregoing statement, that the narrow gauge engine of the class we have been considering has more power over the seven narrow gauge carriages, and a load of 126 passengers, than the broad gauge engine has over the seven broad gauge carriages, and the load of the same number of passengers; and that, therefore, if the Great Western had been a narrow instead of a broad gauge line, the South Western engines would have had the same command over the existing passenger traffic of the Great

Western as its own engines now have with the present construction of that railway.

We must remark, however, that this calculation is for trains consisting exclusively of passengers and their personal luggage. In the Great Western average trains of 67 tons there is an allowance of about 16 tons for passengers and luggage, including gentlemen's carriages. Allowing the same weight of luggage on the narrow gauge line, the train would still not exceed 50 tons, which is considerably within the power of the narrow gauge engine. For it appears, by the experiments that have been recently made on the Great Western Railway, the details of which are given in the appendix to the evidence, that the Great Western engine is capable of propelling 13 tons at a greater speed than the average speed of that line; and, consequently, by the proportion above stated, the narrow gauge engine would be capable of propelling 55 tons at the same rate. We conclude, therefore, that the work would be performed at about the same expense for locomotive power.

That there may be cases in which not only the full power of a broad gauge engine is required, but even the assistance of a second engine, is quite certain, but such trains form the exception and not the rule in railway passenger traffic, and we doubt the soundness of a principle which involves a great expense in construction, for the sake of possessing capabilities so seldom called into action*.

It is proper to observe, that the foregoing comparison would have appeared to stand more in favour of the narrow gauge, had we taken for the engine of comparison, one of those engines, of whose increased capabilities some of the supporters of the narrow gauge system have informed us; but we have preferred the comparison afforded with the South Western engine, from its being the one on which Mr. Gooch, of the Great Western Railway, superintended the recorded experiments—hence our deductions are made from data furnished by the advocates of the broad gauge system, without drawing anything from the evidence on the other side; and as these deductions sufficiently demonstrate that there is no economy in the locomotive expenses for passenger-trains resulting from working a line on the broad gauge system, even on such lines as those which have at the present moment the most abundant passenger traffic, any analyzation of the evidence offered in support of the narrow gauge system appears to us to be quite superfluous.

There is one point, however, stated in Mr. Gooch's comparative table, and repeated in his evidence, which appears so much at variance with the results we have obtained from other data, as to require explanation.

Mr. Gooch has asserted that the Great Western Company work their passenger-trains at half the expense per ton at which the London and Birmingham Company work their passenger-trains. The fact is, however, that Mr. Gooch's calculations refer to the gross and not to the net loads; and, therefore, the comparison is not applicable, so far as regards the profits of these companies, and affords no proof of economy in working the passenger traffic on the Great Western system.

There can be no doubt, judging both from Mr. Brunel's evidence given to us, and from his report to the directors of the Great Western Railway Company, that he originally expected there would be on the Great Western Railway a demand for carrying great numbers of passengers at high velocities; but, from his own evidence, it appears that the only heavy passenger traffic upon that railway is between London and Reading, and between Bath and Bristol, being a total distance of about 50 miles, out of 245.

* It appears that during the half-year ending June 30, 1845, the number of miles run by coupled and assisting engines for passenger-trains on the Great Western Railway amounted to 11,628, and for goods trains to 51,155. The total number of miles run by the former trains being 761,483, and of the latter, 159,324.

On the remaining part of the line the passenger traffic, per train, is small.

If the convenience of the public would admit of the whole of the passenger traffic of this portion of the line being conveyed daily by two or three large trains, Mr. Brunel's views would have been perfectly correct in providing such powerful means; but experience has proved that the public require passenger-trains to be run many times during the day, and with this frequency of trains, such numbers of passengers as Mr. Brunel has provided for cannot be expected even on railways of the largest traffic, so that practically there is a waste both of power and of means. In the case of "goods traffic," the circumstances are not the same, railway conveyance for merchandise seems only to be required a few times in each day, and the trains are generally large. The "through" waggons have for the most part a full load, and the disproportion between the gross and the net weight is consequently much less than in the passenger-trains; still, however, it appears from the evidence of Mr. Horne, and of other persons connected with the carrying trade, that on the London and Birmingham Railway it frequently happens that waggons are forwarded to a considerable distance, to "road-side stations," containing not more than a ton of goods; and there can be no doubt that this must happen on any long line of railway. The same also occurs in waggons coming in from branches along the trunk line, and in all such cases the heavy large waggon of the broad gauge must be disadvantageous; but, although the evil is not so great with goods waggons of the broad gauge as with their passenger carriages, still the loss by dead weight is greater with these than with smaller waggons, and we do not perceive any advantages in the broad gauge to counterbalance it; for where speed is not an object, and this is the case with goods trains, we believe from the evidence we have received, that engines of nearly the same tractive power are to be found on many narrow gauge lines as those in use on the broad gauge.

Thus far we have considered the question with reference to the railways as they now exist, and composed in a great measure of trunk lines of considerable traffic, but the railways to be made in future will in some degree be branches or lines in districts having traffic of less magnitude than is to be provided for in the existing railways; and hence, if for the greater trunk lines a superiority were due to the broad gauge system, that superiority would be less for lines yet to be constructed of a smaller amount of traffic; and necessarily, if the preference were given to the narrow gauge for the existing lines, that system would be still more entitled to the preference for the railways of smaller traffic to which we look forward.

We must here add, that towards the close of our inquiry, Mr. Brunel requested, on the part of the broad gauge companies, to institute a set of experiments to test the power of their engines, and Mr. Bidder, on the part of the narrow gauge companies, undertook, in consequence of such application, to make corresponding experiments on the narrow gauge. After sanctioning these trials, and being present at the performance of them, a record of which will be found in the appendix, we may observe, without entering into a minute detail of the results, or the discrepancies between the returns as furnished by the two parties themselves, that we consider them as confirming the statements and results given by Mr. Gooch, in his evidence, proving as they do, that the broad gauge engines possess greater capabilities for speed with equal loads, and, generally speaking, of propelling greater loads with equal speed: and moreover, that the working with such engines is economical where very high speeds are required, or where the loads to be conveyed are such as to require the full power of the engine. They confirm, also, the evidence given by Mr. Bidder as to the possibility of obtaining high evaporative power with long engines for the narrow gauge; but under somewhat peculiar circumstances. It appears, moreover, that the evaporation

thus obtained does not produce a corresponding useful effect in the tractive power of the engine; a circumstance that would probably be differently explained by Mr. Gooch and by Mr. Bidder; but as we do not refer to the power of this description of engine in the deductions we have made, it is unnecessary for us to allude further to them.

After a full consideration of all the circumstances that have come before us, and of the deductions we have made from the evidence, we are led to conclude—

1. That as regards the safety, accommodation, and convenience of the passengers, no decided preference is due to either gauge, but that on the broad gauge the motion is generally more easy at high velocities.

2. That in respect of speed, we consider the advantages are with the broad gauge, but we think the public safety would be endangered in employing the greater capabilities of the broad gauge much beyond their present use, except on roads more consolidated and more substantially and perfectly formed, than those of the existing lines.

3. That in the commercial case of the transport of goods, we believe the narrow gauge to possess the greater convenience, and to be the more suited to the general traffic of the country.

4. That the broad gauge involves the greater outlay, and that we have not been able to discover, either in the maintenance of way, in the cost of locomotive power, or in the other annual expenses, any adequate reduction to compensate for the additional first cost.

Therefore, esteeming the importance of the highest speed on express trains for the accommodation of a comparatively small number of persons, however desirable that may be to them, as of far less moment than affording increased convenience to the general commercial traffic of the country, we are inclined to consider the narrow gauge as that which should be preferred for general convenience; and, therefore, if it were imperative to produce uniformity, we should recommend that uniformity to be produced by an alteration of the broad to the narrow gauge, more especially when we take into consideration that the extent of the former at present in work is only 274 miles, while that of the latter is not less than 1,901 miles, and that the alteration of the former to the latter, even if of equal length, would be the less costly as well as the less difficult operation.

We are desirous, however, of guarding ourselves from being supposed to express an opinion, that the dimension of four feet eight and a half inches is in all respects the most suited for the general objects of the country. Some of the engineers who have been examined by us have given it as their opinion, that five feet would be the best dimension for a railway gauge; others have suggested 5 ft. 3 in., 5 ft. 6 in., and even 6 ft., but none have recommended so great a breadth as 7 ft., except those who are more particularly interested in the broad gauge lines. Again, some engineers of eminence contend that a gauge of 4 ft. 8½ in. gives ample space for the machinery of the engine and all the railway requirements, and would recommend no change to be made in the gauge.

We may observe, in reference to this part of the question, that the Eastern Counties Railway was originally constructed on a gauge of 5 ft., and has since been converted into a gauge of 4 ft. 8½ in., to avoid a break of gauge; and we have been informed that some lines in Scotland, originally on the gauge of 5 ft. 3 in., are about to be altered to 4 ft. 8½ in. for the same reason.

Whatever might be the preferable course were the questions now to be discussed of the gauge for an entire system of railways, where none previously existed to clash with the decision, yet, under the present state of things, we see no sufficient reason to suggest or recommend the adoption of any gauge intermediate between the narrow gauge of 4 ft. 8½ in., and the broad gauge of 7 ft., and we are peculiarly struck by the circumstance, that almost all the continental railways have been formed upon the 4 ft. 8½ in.

gauge, the greater number having been undertaken, after a long experience of both the broad and the narrow gauge in this country; nor must the fact be lost sight of, that some of these railways have been constructed as well as planned by English engineers, and amongst that number we find Mr. Brunel, the original projector of the broad gauge. Mr. Brunel was also the engineer of the Merthyr Tydvil and Cardiff Line, which is on the 4 ft. 8½ in. gauge; and we think that the motives which led to his adoption of the narrow gauge in that instance would equally apply to many English lines.

We are sensible of the importance, in ordinary circumstances, of leaving commercial enterprise, as well as the genius of scientific men, unfettered; we therefore feel that the restriction of the gauge is a measure that should not be lightly entertained; and we are willing to admit, were it not for the great evil that must inevitably be experienced when lines of unequal gauges come into contact, that varying gradients, curves, and traffic might justify some difference in the breadth of gauge. This appears to be the view which Mr. Brunel originally took of the subject; for the Great Western proper is a line of unusually good gradients, on which a larger passenger traffic was anticipated, and as it touched but slightly on any mineral district, it embraced all the conveniences and advantages of the broad gauge system, and was comparatively free from the influence of those defects on which we have commented; but such a breadth of gauge, however suitable and applicable it may have originally been considered to its particular district, appears wholly inapplicable, or at least very ill suited, to the requirements of many of our Northern and Midland lines.

In reference to the branches already in connexion with the Great Western Railway, we may observe, that the greatest average train on the Oxford branch, for two weeks in July and October, was only 48 tons; on the Cheltenham branch, it did not exceed 46; between Bristol and Exeter, 53; and between Swindon and Bristol it was under 60 tons. With such a limited traffic the power of the broad gauge engine seems beyond the requirements of these districts.

We find, from an estimate furnished to us, and the general grounds of which we see no reason to dispute, that the expense of altering the existing broad gauge to narrow gauge lines, including the alteration or substitution of locomotives, and carrying stock, would not much exceed 1,000,000*l.*; yet we neither feel that we can recommend the legislature to sanction such an expense from the public moneys, nor do we think that the companies to which the broad gauge railways belong can be called upon to incur such an expense themselves, (having made all their works with the authority of Parliament,) nor even the more limited expense of laying down intermediate rails for narrow gauge traffic. Still less can we propose, for any advantage that has been suggested, the alteration of the whole of the railways of Great Britain, with their carrying stock and engines, to some intermediate gauge. The outlay in this case would be very much more considerable than the sum above-mentioned; and the evil, inconvenience, and danger to the traveller, and the interruption to the whole traffic of the country for a considerable period, and almost at one and the same time, would be such that this change cannot be seriously entertained.

Guided by the foregoing considerations, we most dutifully submit to your Majesty the following recommendations:—

1. That the gauge of 4 ft. 8½ in. be declared by the legislature to be the gauge to be used in all public railways now under construction, or hereafter to be constructed in Great Britain.
2. That unless by the consent of the legislature, it should not be permitted to the directors of any railway company to alter the gauge of such railway.
3. That in order to complete the general chain of narrow gauge communication from the north of England to the southern coast, any suitable measure should be promoted to form a narrow gauge link from Oxford to

Reading, and thence to Basingstoke, or by any shorter route connecting the proposed Rugby and Oxford line with the South Western Railway.

4. That as any junction to be formed with a broad gauge line would involve a break of gauge, provided our first recommendation be adopted, great commercial inconvenience would be obtained by reducing the gauge of the present broad gauge lines to the narrow gauge of 4 ft. 8½ in., and we, therefore, think it desirable that some equitable means should be found of producing such entire uniformity of gauge, or of adopting such other course as would admit of the narrow gauge carriages passing, without interruption or danger, along the broad gauge lines.

(Signed) J. M. FREDERIC SMITH,
Lieut.-Col. Royal Engineers.
G. B. AIRY,
Astronomer Royal.
PETER BARLOW.

The following appendices are subjoined to the report:—

RETURN OF RAILWAYS IN GREAT BRITAIN, FURNISHED BY THE BOARD OF
TRADE, JULY, 1845.

Number of miles of railway completed in the United Kingdom	2,264
Of which on the wide gauge of 7 feet—	
Great Western	118½
Cheltenham Branch	42
Oxford Branch	10
Bristol and Exeter	76
Bristol and Gloucester	27½—274
On the gauge of 6 feet 2 inches, but intended to be altered to 5 feet 3 inches—	
Ulster	25
On the gauge of 5 feet 6 inches, but intended to be altered to 4 feet 8½ inches—	
Arbroath and Forfar	15½
Dundee and Arbroath	16½—32
On the gauge of 5 feet 3 inches—	
Dublin and Drogheda	32
On the gauge of 4 feet 8½ inches	1,901
Number of miles of railway sanctioned in 1844	787½
Of which on the 7 feet gauge—	
South Devon	63
On the 5 feet 3 inch gauge (Ireland)—	
Great Southern and Western	122½
On the 4 feet 8½ inches gauge	602½
Total made or sanctioned on the 7 feet gauge	366½
Total made or sanctioned on the 4 feet 8½ inch gauge	2,503½
Number of miles of projects for which plans and sections were deposited at the Board of Trade for 1845	8,000
Of which on the wide gauge of 7 feet	658

Number of miles of railway comprised in bills which have passed the House of Commons, and seem likely to be sanctioned by Parliament in this session, about . . .		2,840
Of which in Ireland on the 5 feet 3 inch gauge . . .		772
On the 7 feet gauge—		
Bristol and Exeter, branches	29	
Cornwall	66	
Exeter and Crediton	5½	
South Wales	211	
Wilts and Somerset	129	
	<hr/>	
	440½	
Exclusive of the		
Oxford and Rugby	50½	
Oxford, Worcester, and Wolverhampton	97½	
	<hr/>	
	588½	—588½
Or, inclusive of the Oxford and Rugby, &c.		
On the 4 feet 8½ inch gauge		1,628
Grand total of railways made, sanctioned, or likely to be sanctioned, up to the present time, July, 1845:—		
On the narrow gauge of 4 feet 8½ inches		4,131½
On the wide gauge of 7 feet		777½

STATEMENT OF ACCIDENTS, abstracted from the Reports of the Railway Department of the Board of Trade, in which the Engine and Carriages, or some part of the Train, have run off the Line, without any known obstruction, from September, 1840, to March, 1845.

Date of Accident.	Name of Railway.	Breadth of Gauge.	Deaths and Injuries.		Nature and Cause of the Accident.
			Killed.	Injured.	
1840.		ft. in.			
Oct. 19.	Eastern Counties .	5 0	4	6	Excessive speed.
Nov. 8.	Midland Counties.	4 8½	...	8	Excessive speed.
1841.					
Sept. 7.	Great Western .	7 0	1	...	One engine out of two off the line.
Oct. 2.	London and Brigh-ton.	4 8½	4	2	Bad road and excessive speed.
1843.					
Nov. 15.	South-Eastern .	4 8½	...	...	Cause not known.
1844.					
Oct. 31.	Newcastle and Carlisle.	4 8½	...	1	Excessive speed.

Similar Accidents which have occurred since the last Report of the Board of Trade, from March, 1845, to the 1st of January, 1846.

Date of Accident.	Name of Railway.	Breadth of Gauge.	Deaths and Injuries.		Nature and Cause of the Accident.
			Killed.	Injured.	
1845.		ft. in.			
June 16.	Great Western . .	7 0	...	several	Express train—carriages only off the line.
June	Great Western . .	7 0	...	...	Ditto, a similar accident, not reported.
Aug. 4.	Northern and Eastern.	4 8½	2	several	Cause not ascertained.
Aug. 19.	Northern and Eastern.	4 8½	...	2	Supposed cause, a defective joint. Less speed recommended.
Aug. 18.	Manchester and Leeds.	4 8½	...	several	Express trains, thrown over an embankment.
Dec.	Norfolk	4 8½			
1846.					
Jan. 1.	York and Darlington.	4 8½	2	3	Experimental train—speed 48 miles.

TABLE exhibiting the Expenditure of the Great Western and London and Birmingham Railways for Locomotive Engines, Carriages, and Waggon, from the commencement of the traffic to the present time; also the Revenue Returns of each for the last two years, and the Expense of Locomotive Power, as deduced from the Half-yearly Reports of each Company.

	£	s.	d.
Great Western.—Total cost of locomotive engines, tenders, carriages, and waggon, to 30th of June, 1845	622,078	12	0
London and Birmingham.—Total cost of locomotive engines, tenders, carriages, and waggon, to 30th June, 1845	494,403	5	0
These sums are exclusive of the charges for locomotive, carriage, and waggon repairs, included in the half-yearly accounts. These latter have amounted in the last two years to—			
Great Western.—From 1st of July, 1843, to 30th of June, 1845	56,932	17	0
London and Birmingham.—From 1st July, 1843, to 30th June, 1845	57,578	8	0
The cost of locomotive power, including repairs of locomotive engines, coal, coke, wages, and all incidental charges, have amounted in the same period to—			
Great Western.—From 1st of July, 1843, to 30th June, 1845	155,902	2	0

London and Birmingham.—From 1st of July, 1843, to 30th of June, 1845	£	s.	d.
	146,172	3	3
The revenue for the same two years, for the carriage of passengers, mails, goods, &c.—			
Great Western.—From 1st of July, 1843, to 30th of June, 1845	1,617,995	8	0
London and Birmingham.—From 1st of July, 1843, to 30th June, 1845	1,735,795	14	3
The total mileage of every passenger for the last two years, amounts to—			
Great Western.—Total mileage from 1st of July, 1843, to 30th of June, 1845	128,524,232		
London and Birmingham.—Total mileage from 1st of July, 1843, to 30th of June, 1845	121,529,606		

	Great Western and London and Birmingham.	
Ratio of cost of engine and carriage plant	1	to .763
Ratio of repairs of engine for 2 years	1	to 1.021
Ratio of cost of locomotive power for 2 years	1	to .049
Ratio of passengers' mileage for 2 years	1	to .945
Ratio of total passengers' revenues for 2 years	1	to 1.072

During the periods which these returns embrace the lengths of line worked by the Great Western have varied by the opening of different lines and branches; but from the 30th of December, 1844, to June 30th, 1845, the number of miles worked have been constant, viz., 222 miles. The lengths worked by the London and Birmingham have also been constant during the same period, and Mr. Creed in his evidence states (excluding the branches) that the distance worked was 113 miles; and the revenue and mileage on this length, that is still excluding the branches, he gives as below.

Similar statements are given in the appendix of the revenue, mileage, &c., on the Great Western for a like period; from which we have the following comparisons:—

	Miles.
Great Western, length of line worked	222
London and Birmingham, length of line worked	113
Great Western, total passengers' mileage	35,967,713
London and Birmingham, total passengers' mileage	38,758,260
Great Western, miles run by passenger trains	761,483
London and Birmingham, miles run by passenger trains	456,526
Great Western, average number of passengers per trains	47.2
London and Birmingham, average number of passengers per trains	84.9
Great Western, average passengers' revenue per trains per mile	9s.
London and Birmingham, average passengers' revenue per trains per mile	14s. 9d.

THE RAILWAY SCALE.

UNDER this title Messrs. Bradshaw and Blacklock have published an index to the mileage of railways completed or projected, and a ready means of comparing the relative merits of competing lines. A map of the country, with the railways inserted, is ruled across with intersecting lines, forming by their intersections triangles, of which each side is of forty-five miles. The London and Liverpool route and the five others diverging at equal angles from London form the six base lines from that centre; these are severally cut at forty-five mile stations by cross lines, forming, as just said, triangles,

while any two contiguous triangles make a lozenge-shaped figure. The "explanation" of the scale tells us that the difference between the "direct" line or diagonal of these lozenges, and the route by the two contiguous sides that unite the same extremities, is only one seventh of this latter distance. We find accordingly that the route from London by Stafford to Newcastle is only forty miles longer than the "direct" line, or rather than a perfectly straight line, (as that of the meridian,) between these termini; or, in time-measurement, the most "direct line" would save about three quarters of an hour over the route round by Stafford. This of course is a maximum of deviation, and beyond any actual bends in a railroad between two places within our actual railway system. By the same scale we can readily reckon the cost of this saving, for at the average of one million sterling for every forty miles of rail we find, counting up the diagonals of the lozenges, that the amount will be upwards of four millions sterling. We would have this amount borne in mind, or rather would advert to the general average of two millions as the cost of each of these elementary diagonals of ninety miles or "direct line," in running over these elements of the scale and the railroads that they fall upon. An estimate might thus be come at of the prospects of our grand schemes, and the scale would serve as a sieve through which must fall instantly a vast bulk of unprofitable speculation. In a word, it may be declared that no line approaching the length of one hundred miles (either as originally projected or by extensions in the direction of a completed shorter line) can be drawn profitably between any two lines of the scale. So that by counting these lines, the limit of mileage for the whole area of the country may be determined, leaving only for manufacturing and mining countries a greater extensibility, and reserving short centralized feeders for the areas included by the intersections, we mean for the triangular areas of the intersected map. These centres are indicated in the "explanation;" they throw out three "feeders" or branches of about twelve miles each to their respective contiguous sides. This arrangement of the scale may appear fanciful, but it will be found that some of the best laid lines fall nearly into the arrangement; for the purpose of ascertaining which, the intersections are referred to by figures or letters, and the railways are simply indicated by reference to these figures. In cases where the actual lines are not coincident with the scale, their average capacity of accommodation to the area passed through will be taken, so that a curved railway may be considered as partly belonging to each of the two contiguous scale lines, as in the instance of the Northampton and Peterborough line.

With respect to "rival gauges," it will appear that there is no necessary obstruction of transit for places one hundred miles apart by variety of gauge by one route, as there will generally be another rail route avoiding the difficulty without increase of distance. For verifying this and other particulars, we refer our reader to the publication before us.

RAILWAY MEETINGS.

COCKERMOUTH AND WORKINGTON RAILWAY COMPANY.

The half-yearly general meeting of this Company was held at the Court House, in Cocker-mouth, on January 31st, John Wilson Fletcher, Esq., in the chair.

"DIRECTORS' REPORT."

"In meeting the proprietors on the occasion of the first half-yearly meeting, your Directors cannot but feel it a matter of regret that they are not able to

report the commencement of active operations in the construction of the works of the line. With every disposition to forward the undertaking as fast as possible, they have not been able, since the receipt of the engineer's plans, at the end of October, to get possession of sufficient land to make a commencement; but as several parties have now been agreed with, and the remainder, with one or two exceptions, have left the settlement to arbitration, it is confidently expected that in a few days the works may be commenced.

"The contract for the whole of the works, exclusive of stations, accommodation for the occupation of land, and works at Workington Harbour, has been let to Messrs. J. and W. Ritson, for the sum of 37,729*l.* 16*s.* These gentlemen have completed, satisfactorily, works upon the Whitehaven Junction line, and have been using increased exertions to finish their contract on that line before commencing the works upon this; and as they engage to execute the whole in nine months from the time of getting possession of the land, the Directors fully anticipate that the delay which has arisen will not materially retard the works, and that the line may be completed within the present year.

"The shares unappropriated at the passing of the act have been distributed pro rata among the shareholders, with the exception of a few shares which the Directors hold for the present on behalf of the Company.

"Annexed is a statement of the receipts and expenditure up to the end of the year.

"A sum of money having been voted at the last general meeting toward the expense of surveying a line through the Lake district, to join the Kendal and Windermere Railway; and a portion of this line, namely, from Cockermouth to Keswick, having been taken up by an independent company, under the name of the Cockermouth and Workington Extension Railway Company, the necessary plans, &c., for which have been deposited to enable them to apply for an act in the present session of parliament, your Directors have, individually, given the same their support, and recommended the shareholders to promote, as much as possible, this extension, which cannot fail materially to increase the traffic upon their own line, and to economise the working expenses, if suitable arrangements can be made between the two companies.

"STATEMENT OF ACCOUNT TO 31ST DEC. 1845.

<i>Dr.</i>	<i>£</i>	<i>£ s. d.</i>
To deposit 1 <i>l.</i> on 3138 shares	3138	
To first call 4 <i>l.</i> on 3138 shares	£12,552	
To less call on 66 shares in arrear	220	
	<hr/> 12,332	
To first call of 5 <i>l.</i> on second allotment 623 shares	3115	
To less call on 8 shares in arrear	40	
	<hr/> 3075	
		<hr/> 18,545 0 0
To interest		29 3 7
		<hr/> £18,574 3 7
<i>Cr.</i>	<i>£</i>	<i>s. d.</i>
By land and compensation	6	5 6
By law and parliamentary expenses	1455	12 0
By engineering and surveying	1636	0 6
By rails and chairs	36	14 6
By office charges	105	6 5
	<hr/>	
Carried forward	£3239	18 11

	Brought forward	£3,239	18	11	
By fixtures and furniture	.	.	62	13	7
By advertising, printing, and stationery	.	.	90	6	10
Balance, December 31st, 1845	.	.	15,131	4	9
			<hr/>		
			£18,574	3	7
	"JONATHAN HARRIS	} Auditors."			
	JOHN TYSON				

BRISTOL AND GLOUCESTER RAILWAY COMPANY.

A HALF-YEARLY meeting of the proprietors of the above railway was held at Bristol, Feb. 4, George Jones, Esq., Chairman of the Board of Directors, in the chair.

The Secretary, Mr. Fletcher, read the following report:—

"The Directors have to refer to that part of their last report which announced that the proprietors would receive from the Midland Railway Company interest at the rate of 6 per cent. per annum on their stock in this Company, from the 1st day of July, 1845, under the agreement made on the preceding 8th day of February, between that Company and the 'Bristol and Birmingham' and 'Bristol and Gloucester' Railway Companies.

"It was then expected that the proprietors would receive their first half-year's interest on or soon after the day on which it became due—viz., the 1st day of January, 1846, without the intervention of a formal half-yearly meeting of the proprietors; but as the Midland Railway Company have thought it necessary, and have requested that the present half-year's interest should be distributed amongst the proprietors under the powers and provisions of the existing acts of parliament possessed by the two companies included in the agreement, until the new bills which are now before the legislature for the confirmation of the lease shall have been passed, the Directors have thought it right to convene this meeting of the proprietors for that purpose.

"The Directors accordingly recommend that distribution be now made of the sum of 11,898*l.* 19*s.* 11*d.* amongst the proprietors, as the half-year's interest due on the first day of January last, being at the rate of six per cent. per annum on the stock to which each proprietor is entitled under the said agreement, deducting therefrom interest at the rate of 4½ per cent. per annum on such part of the stock as may not yet have been paid up.

"The Directors who retire this year from the board are Messrs. George Jones, Wm. Morgan, Henry Fyson and Francis Fry, who are eligible for re-appointment.

"GEORGE JONES, Chairman."

LONDON AND BRIGHTON RAILWAY.

THE half-yearly meeting of the above Company was held, Tuesday, February 10th, at the London Bridge terminus, Mr. Rowland Hill in the chair. The following report was laid before the proprietors:—

"Your Directors have again the satisfaction of congratulating you on the continued increase of your revenue.

"The revenue account now submitted shows an available balance of 76,051*l.* 17*s.* 10*d.*, out of which the Directors recommend that a dividend should be paid of 35*s.* per share, deducting the income tax. This will leave a balance of 1373*l.* 5*s.* 4*d.*, to be carried to the credit of the next half year.

"A comparison of the revenue account with that for the corresponding half of the year 1844, shows an increase in the receipts for passenger traffic of 12,457*l.*, or 10½ per cent., and an increase in the receipts for goods and cattle of 3365*l.*, or 30 per cent.; making together an increase of 15,822*l.*, or

12½ per cent. It also shows an increase in working expenses of 4747l, or 15½ per cent.; a diminution in interest, chiefly arising from the conversion of loan notes into shares, of 6307l, and an increase of net income of 18,191l, or 34 per cent. With regard to the increase in working expenses, it should be remarked, that while the receipts for passengers have increased 10½ per cent., the number has increased 18½ per cent. The quantity of goods conveyed has also increased in a greater ratio than the receipts.

"The capital account shows an outlay for the half-year of 38,422l. Of this sum, 21,886l. has been expended in new engines, carriages, horse-boxes, waggons, &c., being an entire addition to the previous stock of the Company, and rendered necessary by the increase of traffic on the main line, and by the further increase which may be anticipated on opening the branches. More locomotive stock has been contracted for, to be delivered in the course of the current year.

"A contract was entered into, in November last, for the erection of extensive workshops and engine sheds at Brighton. These works are far advanced, and will be completed in about a month from this date. A roof is also being constructed over the yard at Brighton, to cover the carriages waiting the arrival of trains; and further improvements are being made in the booking-offices and waiting rooms.

"A more direct approach to the Brighton Station is now being made, at the joint expense of the Company and the town commissioners.

"For all these works an outlay of about 25,000l. will be required.

"The result of the recent expenditure at Kingston Wharf has been to afford wharfage accommodation in berths for seven additional vessels.

"The line, works and locomotive stock are in good condition.

"Your Directors have effected the intended reduction in the fares announced by their chairman at the last half-yearly meeting. They have also attached third class carriages to all the 2½ hour trains; and it is their intention early in the spring to make a further increase in the number of trains conveying third class passengers.

"This Company having, your Directors believe, been the first among those possessing long lines to issue day and other periodic tickets on an extensive scale, a brief statement of the results may not be uninteresting to the proprietors:—

"Day Tickets.—The charge is a fare and a half, and the number of travellers about 15 per cent. of the whole.

Other periodical tickets—

	Number issued from the commencement of the present Scale of Prices (April 1, 1845).	Number now in force.
For a year, at 50l. each	32	32
For six months, at 35l. each	10	5
For three months, at 25l. each	17	2
For two months, at 20l. each	20	1
For one month, at 12l. each	125	2
Total amount	£4275	

"The Chichester branch was opened, as far as Worthing, on the 24th of November last; and the Directors have the pleasure to state that the traffic already realized is perfectly satisfactory.

"For further information as to the progress of the Chichester and Hastings Branches, and the probable time of completion, your Directors beg to refer to the accompanying reports of the engineer.

"Your Directors have agreed with the South Western Company to construct, jointly with them, the extension line from Chichester to Portsmouth, with a branch to that Company's line at Fareham; the South Western Company having paid to the Company 16,812l. 10s. as their share of the premium

on the purchase of the Chichester line. A resolution, confirmatory of this agreement, will be submitted for your adoption.

"A contract for these works has been entered into with Mr. Wythes, who has also undertaken the construction of the branch from Keymer to Lewes. Mr. Hale is the contractor for the Horsham branch.

"The amalgamation of the Croydon Company with this Company has been settled by the respective boards on the terms authorized by the special meeting of this Company on the 9th December last; and a bill to give legal effect to this arrangement will be submitted for your approval. The arrangements as to the Wandsworth branch, and other important matters, have been adjusted by the joint committee in the most amicable manner.

"The union of the two companies presents a favourable opportunity of converting the various shares into stock; and a resolution authorizing such a measure will be submitted for your consideration.

"To facilitate this conversion, it is desirable that the holders of the consolidated eighth shares should be induced to forego the guarantee of 5 per cent. for ten years, from Jan. 1, 1846, which now attaches to those shares. To effect this, your Directors propose that such as are willing to abandon the guarantee (and such only) be allowed to pay up the remaining 10*l.* per share. As with the present prospects of the Company the guarantee will, in all probability, be wholly inoperative, the inducement now proposed will no doubt prove sufficient.

"The joint working of the locomotive establishment with the South Eastern and Croydon Companies was extended, with a view to mutual convenience, to the 31st ult., when it ceased altogether; and the Brighton and Croydon Companies have agreed to become purchasers of the extensive buildings recently occupied by the three companies, at New Cross, together with fixtures, &c., the South Eastern Company having the sole use of the workshops till the 1st Feb., 1847, when the purchase will be completed.

"Among the reasons for purchasing this property, the most prominent are—the importance of retaining it in the hands of the proprietors of the line to which it is adjacent, and of guarding against the risk of incumbrance which such an establishment, situated as it is at the foot of a long incline, might cause if under the control of other parties. Should it be found hereafter that any portion of these premises can be spared, such portion can be let or sold in such a manner as to preclude a use thereof in any way injurious to this Company's traffic.

"During the past half-year your Directors have carefully examined the whole district bordering on your lines of railway, with a view of ascertaining whether there are any places to which the system of railway communication may be advantageously extended. Lines of railway, which as independent undertakings would be ruinous to the projectors, may, in the hands of existing companies, as branches to their main lines, be fairly profitable. This results partly from the superior economy with which, in such hands, they may be made and worked, and partly from their value as feeders to the main lines.

"To your Directors it appears highly important that this principle should be well understood by railway proprietors and the public. Its general acceptance would protect the public, by discouraging rash speculations, and would give stability to railway property by preventing a competition as injurious to the public at large as to the established Companies; while it would, at the same time, promote the rapid and economical extension of the railway system throughout the kingdom.

"Convinced of the soundness of these views, your Directors believe that they cannot more effectually promote your interests, or those of the public, which are indeed identical with yours, than by giving them practical application. They therefore recommend that you should authorize an application to parliament for powers to construct the following lines of railway:—The

Wandsworth and Dorking branches, though sanctioned at a former meeting, being again submitted for your consideration.

"From the main line—

	Miles.	Estimated Cost, exclusive of Parliamentary Expenses and Stations.
Wandsworth branch	Length 6½	Double line £140,000
Dorking branch	7½	Ditto 145,000
East Grinstead branch	6½	Ditto 80,000
From the Chichester line		
Steyning branch	4½	Single line 44,000
Littlehampton branch	1½	Ditto 10,000
Bognor branch	3½	Ditto 35,000
From the Hastings line—		
Newhaven and Seaford branch	8½	Double line 104,000
Hailsham branch	2½	Single line 30,000
Eastbourne branch	4½	Ditto 40,000
Hastings deviation	"	Double line 8,000
	46	£638,000

"The branch to Newhaven, in connexion with the Keymer branch now in course of construction, will possess an additional value as affording the most direct route to Paris. Its extension to Seaford will depend on the decision of government as to the proposed harbour of refuge. The Hastings deviation has already been made with the consent of the landowners, with a view of effecting a nearer approach to Lewes. Parliamentary sanction is, however, desirable. The other lines do not appear to call for any special notice.

"The deposits for these lines have been paid in the usual manner, the Directors signing the parliamentary contract as trustees for the Company; and the requisite capital will be raised in such manner as the proprietors may determine when it is known what bills will be sanctioned by parliament.

"Should the whole of these lines be granted, the amalgamated companies will be possessed of about 200 miles of railway, of which 54 are now completed, 50 are in a forward state, and 42 are contracted for. This statement includes 22 miles of railway in which the South Western Company have a joint property.

"The increased extent of railway which has recently come under the control of this Company renders it desirable that the shareholders should be acquainted with the extent to which the Company is authorized to raise capital. The authority is contained in the following acts:—

	Shares.	Loans.
1 Vict., c. 119, 15th July, 1837. } Main Line . . .	£1,800,000 . .	£600,000
3 and 4 Vict., c. 129, 10th August, 1840. } London Station . .	90,000 . .	30,000
6 Vict., c. 27, 31st May, 1843. } Loan Notes . . .	225,000 . .	75,000
7 and 8 Vict., c. 57, 4th July, 1844. } Chichester Line . .	285,000 . .	95,000
7 and 8 Vict., c. 29, 29th July, 1844. } Hastings Line . . .	425,000 . .	140,000
8 and 9 Vict., c. 52, 30th June, 1845. } Keymer Branch . . .	140,000 . .	46,666
8 and 9 Vict., c. 113, 21st July, 1845. } Horsham Branch . .	100,000 . .	33,333
	£3,065,000	£1,019,999

"The proprietors have already authorized the whole of the above shares to be raised, as also 678,000*l.*, part of the above loans. In addition to the above, the Company has a joint interest with the South Western Company in—

"8 and 9 Vict., c. 119, 8th August, 1845.—Portsmouth Extension and Fareham Branch, 320,000*l.* shares—106,666*l.* loans.

"Some of the holders of loan notes who omitted to give the required notice to convert them into shares, are attempting to enforce their claim by a suit in chancery.

"Conformably with a notification in the last report, the Directors had commenced the necessary steps for establishing the Brighton and Continental Steam Packet Company; but before the deed of settlement could be submitted to the shareholders, the state of the money market became such as to induce the Directors of that Company to postpone taking further steps until a more favourable opportunity, of which they are fully prepared to take advantage, shall present itself.

"Pursuant to the act of parliament, four of the Directors go out of office at this meeting; namely, Henry Spencer Cooper, Gilbert Henderson, Rowland Hill, and Edward Watson, Esqrs., all of whom are eligible for re-election, and, with the exception of Mr. Henderson, offer themselves accordingly.

"February 2, 1846."

Reports of the engineer on the Chichester and Hastings branches, as well as the statement of accounts, were also laid before the meeting.

RICHMOND RAILWAY COMPANY.

The half-yearly general meeting of the proprietors of this railway took place on Tuesday, February 10, at the London Tavern, Bishopsgate Street, when the Secretary read the following Report of the Board of Directors:—

"The Directors in meeting the proprietors on the present occasion, have much pleasure in reporting that considerable progress has been made in carrying out the powers of the act authorizing the construction of this railway, and that the present position of the Company's affairs, both as regards the early completion of the line and the cost of formation, is very satisfactory.

"The promise held out by the Directors in August last, has been in every way fulfilled. The construction of the railway has been undertaken by an experienced contractor, and the works have been prosecuted with that diligence and success which justifies the belief that the whole will be completed, and the line open, previous to the next half-yearly meeting. As a detailed account of the state of the line and the various works will be found in the engineer's report, further reference to this subject is unnecessary.

"Arrangements have been made for the purchase of nearly all the land required, and possession of the larger portion of it has been obtained.

"In consequence of the rapidity with which the works have proceeded, the Directors have found it necessary to avail themselves of the powers given to them by the proprietors in August last, and a second call of 5*l.* has been made on the shareholders of this Company, which is in a satisfactory course of payment.

"The Company are empowered by their Act to borrow 86,000*l.*, when half of their capital has been actually paid up; and the board have, therefore, thought it prudent to apply to you for power to borrow a sum or sums of money, not exceeding in the whole the sum of 50,000*l.* This course they consider would be more agreeable to the proprietors than any immediate further call upon the shares of this Company, as they hope that this may be deferred until the next meeting of shareholders, when it will be known whether parliament will sanction the construction of the branch to Kew.

"The necessary preparations have been duly made to enable the Company

to apply for an Act in the present session of parliament, to construct a branch line to Kew Bridge, which, when carried into effect, must add considerably to the revenue of this Company, as the population of Brentford and the neighbourhood, and the visitors to the gardens, will necessarily bring a large increase of passenger traffic.

"The proprietors have at this meeting to appoint four Directors in the room of those who retire by rotation, in pursuance of the provisions of the 'Companies Clauses Consolidation Act.' The Count Eyre, Thomas Bridge Simpson, John Ballard Byron, and William Bland, Esqrs., are the members who now go out of office; they are eligible, however, for re-election, and offer themselves accordingly. Benjamin Edgington, Esq., one of the auditors, also retires; and Charles Hill, Esq., of 29, Threadneedle Street, is proposed as his successor.

"W. CHADWICK, Chairman.

"STATEMENT OF THE RECEIPTS AND PAYMENTS BY THE RICHMOND RAILWAY COMPANY, FROM THE FORMATION OF THE COMPANY TO THE 31st DECEMBER, 1845, INCLUSIVE.

<i>Receipts.</i>		£	s.	d.	£	s.	d.
Shareholders for calls	.	64,450	0	0			
for interest on calls	.	29	2	10			
Interest from temporary investments	.	292	6	1			
Transfer fees	.	15	4	0			
Total Receipts	.	64,795	12	11	64,795	12	11
<i>Payments.</i>		£	s.	d.			
Land and compensation	.	10,244	1	0			
Construction of way and works	.	15,690	3	8			
Rails and chairs for the permanent way	.	5,250	0	0			
Engineer, surveyors and assistants	.	1,806	3	11			
Parliamentary, law, and arbitration expenses	.	1,679	2	0			
		34,669	10	7			
Furniture for the office	.	105	18	11			
Salaries, wages, and broker's commission	.	774	1	8			
Rent and expenses of office	.	66	11	7			
Advertising	.	311	18	4			
Printing and stationery	.	181	16	10			
Postage, petty disbursements, journeys, &c.	.	149	1	10½			
		1,483	10	3½			
Deposits to await the settlement of claims for land	.	14,641	0	0			
Cash at the bankers, 31st Dec., 1845	.	13,888	10	6			
Ditto in the hands of the Secretary. do.	.	17	2	7½			
		13,905	13	1½			
Total	.	64,795	12	11	64,795	12	11

W. CHADWICK, Chairman.

Approved by us,
BENJAMIN EDGINGTON, } Auditors.
JOSEPH JACKSON, }

SUMMARY OF THE BALANCE SHEET OF THE RICHMOND RAILWAY COMPANY,
ON THE 31st DEC., 1845.

<i>Dr.</i>	£	s.	d.	£	s.	d.
Land and compensation	15,861	8	6			
Construction of the way and works, and rails and chairs for the permanent way	15,940	3	8			
Engineering, surveying, and valuing; also parliamentary, law, and arbitration ex- penses	1,481	15	11			
Furniture for the office	105	18	11			
Salaries, wages, and commission to brokers	715	3	5			
Rent and office charges	134	1	1			
Advertising	411	8	7			
Printing and stationery	464	0	9			
Postage, journeys, and miscellaneous ex- penses	149	1	10½			
Sundry persons, on account of works in progress, &c.	7,282	11	0			
Deposits to await the settlement of claims for land	14,631	0	0			
Shareholders for calls	65,592	9	10			
Cash at the bankers	13,888	10	6			
Cash in the hands of the secretary	17	2	7½			
Total	136,674	16	8	136,674	16	8

<i>Cr.</i>						
Capital stock, being 10% on each of 13,000 shares	130,000	0	0			
Interest on calls and temporary invest- ments, and fees on transfers	388	2	9			
Sundry persons for land and compensation	5,797	13	6			
Sundry persons for rent, services, &c.	489	0	5			
Total	136,674	16	8	136,674	16	8

W. CHADWICK, Chairman.

Approved by us,
BENJAMIN EDGINGTON, } Auditors.
JOSEPH JACKSON, }

"ENGINEER'S REPORT.

"Gentlemen,—For the information of the proprietors at the approaching meeting, I beg to inform you, that since the contract was made with Mr Knill for the execution of all the works on this railway, considerable progress has been made towards their completion. The viaduct across the Wandle, and the cutting at Putney, being the only works of magnitude on the line, attention was first directed to them, and the progress has been very satisfactory. The viaduct is more than half built, and more than one-half of the excavation of the entire line has been removed. Several over-bridges between Putney and Barnes' common have been built, and the lighter earth-work and bridges are proceeding as rapidly as is needful.

"The only part not begun is at the Richmond end, but here the line will be formed nearly on the surface of the ground, and a few months will suffice for completing it, after possession of the land is obtained.

"The line may be completed by June next; and if you were disposed to push there is no reason why it should not be accomplished earlier. The works are not heavy, and delay could only arise from our inability to obtain

possession of the land, or from a succession of bad weather; under any circumstances, you will not be wrong in calculating on the opening in June.

"I am, &c.,
"JOSEPH LOCKE."

KENDAL AND WINDERMERE.

At the half-yearly meeting, the Directors announced that they had entered into an arrangement with the Grand Junction Company to work this line in conjunction with the Lancaster and Carlisle, and that they expect the line will be ready for opening simultaneously with that of the latter Company.

NEWCASTLE AND NORTH SHIELDS.

On the 2nd inst. the annual general meeting of the shareholders took place at Newcastle; Mr. T. H. HINDS, M.P., in the chair. The Report stated, that at the close of the year there remained a balance of 4,070*l.* 8*s.* 4*d.* applicable to a dividend. Out of this sum the Directors recommended that a further dividend of 25*s.* per share be now made, forming, with that made in the summer, a dividend of 5 per cent. for the year. There was a great increase last year in the traffic. The number of passengers amounted, at the close of the year, to 5,289,452, not one of whom had sustained an accident. The Tynemouth extension is expected to be completed in sufficient time for the traffic of the ensuing summer. The Report was adopted by the meeting. The amalgamation of the Newcastle and Darlington and Newcastle and Berwick Companies was discussed, and the Directors were empowered to negotiate for the amalgamation on terms of perfect equality, and to procure the insertion of clauses to that effect in the Act. The Directors were re-appointed.

EAST LANCASHIRE.

The general half-yearly meeting of the Company was held at Bury, on the 30th ult., Mr. J. GROUNDY, chairman, presiding.

Mr. WALKER read the Report, which stated, that the Directors regret that circumstances which they could not control have operated to prevent that progress being made with the works which they confidently expected. Arrangements have been made, however, with a view to expedite the completion of the works, and the contract from Clifton to Bury has been placed in other hands. Since the last meeting of the proprietors, the Leeds and Bradford Company have determined to throw their interests into the hands of the Manchester and Leeds Company. The Directors consider this as a step calculated to cripple the energies of the East Lancashire Railway, and to prejudice the convenience of the public, with reference to an alternative route between Liverpool and Leeds. The Directors have remonstrated against this step, and it will be their duty to use all means to prevent the completion of the amalgamation. The Manchester, Bolton and Bury Railway Company have arranged to amalgamate that line with the Manchester and Leeds Railway. The Directors will use due diligence to prevent your interests being jeopardized by the proposed arrangement. The plans and sections for a branch from Rawtenstall to Bacup, and also to Crawshaw Booth, have been duly lodged, and the requisite notices have been served, in accordance with the Standing Orders of Parliament. The Directors anticipate that Parliament will sanction the application; and the extension of your line into those districts—rich in materials and teeming with an increasing and industrious population, will have an important result upon the interests of your undertaking. A portion of the land has been purchased on the extension line, but in many instances the landowners make most

exorbitant demands. The contracts are let upon the extension line, except between Haslingden and Accrington. The contract for that length will necessarily be delayed until an Act of Parliament for the deviation has been obtained. Subject to the sanction of the proprietors, the Directors have made an arrangement with Mr. Nicholson, who will give his entire attention to your interests, as managing Director. Mr. Walker afterwards read a statement of accounts, showing a total expenditure of 209,130*l.*, and a balance in the bank of 61,512*l.*

The GREAT WESTERN announce a dividend of 4 per cent. on the half-year. The gross receipts have been 468,100*l.*, the expenditure 196,410*l.*, leaving a balance of 271,690*l.* After paying the rent of the Bristol and Exeter and the interest on loans, there remains a sum of 172,526*l.* applicable to dividends, and a balance of 6,890*l.* to the credit of the current half-year.

The BIRMINGHAM AND GRAND JUNCTION have declared dividends of 10 per cent. per annum, clear of property tax. The gross receipts of the Birmingham on the half-year amounted to 540,702*l.*; the expenditure to 222,529*l.*; the balance 318,153*l.* applicable to the dividends, and a large reserve for the next half-year. The receipts of the Grand Junction have been 435,268*l.*; the expenditure 180,499*l.*; the net proceeds 254,768*l.*, out of which is left a disposable balance of 67,197*l.*

At the NORFOLK meeting the report stated that the receipts between the 31st of July, when the line was opened, to the 31st of December, including those of the Yarmouth and Norwich line for one month (July), and including also the tolls for the portion of the line from Brandon to Ely, leased from the Eastern Counties, amounted to 31,286*l.*, not taking credit for certain sums due from the Post Office. After deducting 40 per cent. for working, and 193*l.* 10*s.* per mile for the lease from the Eastern Counties, there remained a sum of 15,901*l.*, which, after paying interest on the mortgage debt, left 11,724*l.* available for a dividend, which was declared at the rate of 5 per cent.

The HARTLEPOOL DOCK AND RAILWAY has agreed to lease itself to the Newcastle and Darlington Junction. The former is to complete the works now in progress, and to be at liberty to convert 52,250*l.* of its borrowed capital into shares, the Newcastle paying it 10 per cent. on the entire capital, and reserving to itself the power of purchasing the Hartlepool undertaking on paying 220*l.* on each 100*l.* of stock. The stock to be created is to be in sixth shares of 16*l.* 13*s.* 4*d.*, and holders of quarter shares are to participate in the new stock equally with original shareholders.

The CLARENCE AND HARTLEPOOL JUNCTION has amalgamated the Hartlepool Dock and Railway. The former is to complete its works and those upon the branch for joining the Newcastle and Darlington by the 1st of July next. Interest is to be paid upon its shares, amounting to 80,000*l.*, at the rate of 3 per cent. till the 1st of July, 1848, and at 5 per cent. from that date; and the Dock Company is to be at liberty to purchase such shares at par any time between the 1st of July, 1848, and the 1st of July, 1849.

The balance sheet of the EASTERN COUNTIES showed the receipts and disbursements for construction of main line, to the 4th of January, 1846, to be 2,996,395*l.*, and the traffic account of the Cambridge and Colchester lines to be 173,166*l.*; also the balance up to the 4th of January (after paying dividends up to the 4th of July, 1845, and income tax) to be 64,467*l.* At the meeting a dividend was declared of 9*s.* per share on the capital stock, at the average value of 14*l.* 16*s.* per share.

The receipts of the TAFF VALE for the past half-year are 29,750*l.* Their increase, as compared with the corresponding half of 1844, amount to 7,058*l.* After payment of all debts and expenses, a clear profit remains of 9,856*l.*,

out of which, along with 229*l.* undivided last year, a dividend was recommended at the meeting of 3*l.* 3*s.* per share, being at the rate of 5 per cent. per annum.

At the CHESTER AND HOLYHEAD meeting, it was stated that the receipts during the past half-year amounted to 397,210*l.*, and the expenditure to 375,996*l.* The total receipts, from the commencement to the 31st of December, 1845, were 814,146*l.*, and the expenditure 504,313*l.* All the calls have not yet been paid up. The line will not be opened before the summer of 1848.

The report of the BRIGHTON COMPANY is satisfactory. The available balance is 76,051*l.*, out of which a dividend was declared of 3*s.* a share. The total net income is, meanwhile, 18,191*l.* (or 34 per cent.) more than in the corresponding period of 1844.

At the BRISTOL AND GLOUCESTER meeting, the report recommended the distribution among the proprietors of 11,896*l.* as the half-year's interest due on the 1st of January, being at the rate of 6 per cent. per annum on the stock, to which each shareholder is entitled, under the agreement, made on the 8th of February, 1845, between the Midland and the Amalgamated Bristol and Gloucester and Bristol and Birmingham, deducting therefrom interest at 4 per cent. on such part of the stock as still remains unpaid.

At the BIRMINGHAM AND GLOUCESTER meeting, a dividend was declared of 3*l.* per 100*l.* share, and 1*s.* per quarter share upon all shares dated prior to the 1st of July, and of 12*s.* 6*d.* per quarter share upon all dated prior to the 1st of August, 1845.

The EAST LANCASHIRE Directors report, that they have a balance of 61,512*l.* in hand, applicable to the works still in progress.

The NEWCASTLE AND NORTH SHIELDS, at the tenth annual meeting, announced a dividend of 2*s.* per share, making, with one in the summer, 5 per cent. per annum.

MADRID AND VALENCIA.

THE scripholders of the Madrid and Valencia Railway held a meeting at the London Tavern. There was great unanimity in their proceedings, and the reports and accounts presented appeared to be received with very general satisfaction. The economy the Directors have exercised in the department of preliminary expenses, was a matter of much congratulation, the gross amount of these not exceeding 4194*l.* 9*s.* 11*d.*, out of deposits received to the extent of 101,835*l.* 10*s.* The Directors were fully authorised to proceed with the construction of the line so soon as the proper amount of capital is subscribed, the Spanish subscription being now in course of payment. It appears that of the 101,835*l.* 10*s.* 1*d.* paid by English depositors, 50,000*l.* is out at interest, on the security of the South-Western Railway, at 4 per cent., 30,712*l.* 17*s.* 10*d.* is deposited as caution money in the Bank of England, and the remaining 21,122*l.* 12*s.* 3*d.* is partly vested in exchequer-bills, and partly standing as a balance at the bankers. No call, it seems, is expected to be made for some months to come.

MISCELLANEOUS.

THE SHROPSHIRE MINERAL RAILWAY COMPANY.

ONE of the vilest frauds, not upon this company merely, but upon the railway community in general, has been brought to light by the chairman of this project. It is now seen how the premium on the shares of the Shropshire Mineral was attained, and how certain parties intimately connected

with it have trafficked to their pecuniary advantage for a time, but to their perpetual dishonour. These gentlemen, however, will soon discover the illegality of their conduct, and, in addition to disgorging their unlawful gains, may find that they run no slight chance of effecting some service to their country by gracing the dock at the Old Bailey, and, under the saving proviso that a jury of their countrymen are satisfied of their innocence, becoming denizens of Newgate for a year or two. The present chairman, Mr. Sergeant Adams, may be taken as thoroughly conversant with criminal law, and is well able to give the directors some good advice on the subject. Their offer to restore the money comes too late. Mr. Sergeant Adams dare not, even were he inclined, enter into any compromise of fraud, he himself having given that emphatic name to their proceedings.

It appears that certain of the directors, more intent on seeing the shares of the company high on the premium list than in preparing the scheme for Parliament, entered into a resolution among themselves to purchase shares of their own company in the market at a premium of 2*l.*, the means to do so not being taken from their individual resources, but from the funds of the shareholders—from the money deposited with them to meet the requirements of Parliament. Nor is this the most gross part of the transaction. They did not go into the open market and purchase scrip promiscuously; they sold the shares which they had allotted to themselves at the premium thus fraudulently created to the company, paid themselves from its coffers this 2*l.* on every share thus disposed of, and then left the concern altogether. The sum abstracted in this manner exceeds 21,000*l.*, of which the late chairman has offered to refund 1,000*l.* if the project be carried over to next session! Carried over to next session, indeed! A company with only 6,000*l.* on hand, the parliamentary deposits required being 70,000*l.*! We suspect the desire that the company should be broken up is much stronger on the part of some of the directors than this expression of the wishes of the late chairman conveys, and glad we are, therefore, to state that the shareholders, nothing daunted by the present adverse appearance of their affairs, have appointed a committee of inquiry, to report so soon as convenient. We may then expect some further disclosures, and the high character of the present chairman, his habits of business, his public position, and the anxiety which he must feel to probe the matter to the core, may all be taken as pledges of the inquiry being of a thoroughly searching character, and of the guilty parties being made to answer for their conduct before one of the criminal tribunals of the country.

Setting aside, therefore, for a time, the illegal dealing in shares, we take up the ordinary transactions of the company for the purpose of ascertaining whether or not they can bear investigation. The project was intended to commence at a junction with the Grand Junction, passing through Eccleshall, Norbury, Newport, Donnington, Madeley, Ironbridge, and Colebrooke Dale, to join the Shrewsbury, Hereford, and North Wales. The capital set down was 700,000*l.*, in 35,000 shares of 20*l.* each, the deposit being 2*l.* 2*s.* per share. That is, 2*l.* for the parliamentary deposit, and 2*s.* to meet preliminary expenses. The prospectus contained the important clause "that, the first deposit being paid, a farther call will not be made until the Act of Parliament shall have been obtained." Here, then, was a distinct pledge that all the shares would be allotted, as it would take the 2*l.* on one and all of them to meet the deposit, leaving only the 2*s.* per share for expenses. The committee could not then intend to trench on the deposits; they could not legally borrow money, except on their own individual responsibility; and they could make no call on their shareholders. They had, therefore, no other money at their command to defray preliminary expenses than the legal and authorized 2*s.* per share, which would amount to the sum of 3,500*l.* The number of shares, however, which have been paid upon was only 17,970, the entire income being 37,737*l.*; that is, 35,940*l.* for a parliamentary deposit, and 1,797*l.* for expenses. The sum expended, in-

dependent of the fraudulent abstraction to purchase shares, amounts to more than 18,000*l*. This, too, in the face of the prospectus, which stated—"The line, which will not interfere with any property of an ornamental or costly character, will not exceed forty-six miles in length, and will be constructed at much less than the average cost." Here, then, is additional employment for the committee of investigation; and we hope, for the sake of the sufferers, and of all who wish to see the railway world winnowed of the worthlessness which has insinuated itself into it, that the truth may be laid bare, and an indignant public be able to know for the future whom to trust, and whom to pass with scorn.

THE STATE OF THE MONEY MARKET FOR THE MONTH OF FEBRUARY.

SINCE those periods of commercial panic and disaster in 1825 and 1837, we do not remember a month of greater pressure on the commercial interests than the one about to close: we shall endeavour to give a faithful record of the causes of that pressure, and offer a few suggestions as to its mitigation, for to remove it altogether is, we fear, impracticable for some time to come; the disease is too deeply seated.

The great cause of the pressure during this month has been the withdrawing the deposits on railways from the hands of the private and joint-stock banks, and placing them to the credit of the Accountant-General in the Bank of England.

When we consider that these deposits, according to the official return of the accountant-general, amount to 11,528,156*l*. 9*s*. 10*d*., and that of this enormous sum not more than 1,500,000*l*. have been invested in stock and exchequer bills; during the period this sum remained in the hands of the private and joint-stock banks, they, for the most part, advanced it on bills of exchange, either in accommodating their own customers, or lending it out to the bill-brokers; the public can therefore easily imagine the pressure that was likely to arise in the mere transfer of this money from the channels in which it was lent to the Bank of England: the only marvel is that the pressure has not been greater than it is, and the consequences more serious.

It is true there have been commercial failures: among the principal may be named that of Emmanuel Brothers, and Messrs. Stockdale of Liverpool, the latter for upwards of 250,000*l*., and money has scarcely been attainable, save for very limited periods; the best commercial paper could not be discounted under 5 per cent., and in many instances a large commission besides. It is wonderful, and we may add consolatory, that commercial credit could have sustained such a pressure—so utter a drying up of the usual channels of accommodation, without further disaster.

But when we examine the returns of the Bank of England, we easily perceive how the disastrous consequences which might have been anticipated from the withdrawal of so vast a capital from its ordinary channels have been averted. By these returns it is evident that as soon as the railway deposits have been paid into the Bank, they have been lent out again on securities; for if we compare the amount of securities held by the Bank, we shall find that they have increased in the same ratio as the deposits—for instance,—

			£
The deposits on the 8th of February, 1845,	were	12,447,364	
Do. " 7th of February, 1846,	"	23,966,883	
The securities " 8th of February, 1845,	"	26,527,018	
Do. " " 1846,	"	39,030,808	

Consequently, whenever the money is withdrawn from the Bank, either by the Accountant-General or by the railways, the Bank will have to diminish the amount of their securities.

The question therefore resolves itself into this,—if the commercial classes are to be accommodated the railways cannot be made.

If the railways are to be made, an immense pressure will fall on either the commercial interests or the funds. This appears the only solution of the present crisis, for if one thing be clearer than another, it is that the whole of the floating capital of the country is absorbed, and more than absorbed : in fact, we are trying to carry on two transactions with one capital, and however we may shift the matter from pillar to post, this is the conclusion to which every one who dispassionately examines the subject must ultimately arrive.

How then are the consequences of so alarming a state of affairs to be averted ? Is the trade and commerce of the country to be crippled, or are railways to be limited ? The election between one and the other must be made, for both cannot go on to the extent proposed, there is not the capital for both ; and if no measures are adopted to limit the railways within the surplus savings and capital of the country, we shall find the commerce and revenue of the country diminish, bullion will diminish in the coffers of the Bank, and ultimately no class will suffer so much as the railway proprietors themselves.

The fact is, there has been an over-speculation in railways ; that speculation must be wound up before the money market again assumes an wholesome state, and this will take a very considerable time to accomplish ; never will the adage of "the most haste the worst speed" be more clearly demonstrated than in the case of railways. No one denies, in fact every one admits, that sooner or later the surface of the United Kingdom will be intersected with railways, but the operation, if it is to be carried out successfully, must be done gradually ; it has taken hundreds of years to construct our present roads and canals, the process has been gradual, but it has been achieved, and so will it be with railways. In fact, there is no such mistake as to imagine that they can be constructed otherwise than gradually, or faster than the surplus capital and income of the country accumulate.

This is the conclusion to which the most eminent financial authorities in the kingdom have arrived, and it is the conclusion to which the public ought to be brought by those organs which devote themselves to instruct and guide, rather than to delude with futile hopes. In the monthly summary which we propose to give of monetary affairs, we shall endeavour faithfully to "register" the truth. And the public may rely that it is as impossible with restricted banking and currency laws to enter into unlimited undertakings, as it is to float a frigate with water only sufficient for a wherry.

We are no alarmists, our interests are wound up in the progress of railways, but we cannot, without the severest distress arising from the unnatural displacement of capital, spare more than a certain amount in any one year for their construction, nor would it be prudent to do so if we could ; let it be remembered that from the impetus, the *unnatural impetus*, given to railways, every article, every element connected with their construction, has risen within the last three years at least 30 per cent. Iron, wood, the wages of labour, bricks, the greatest component parts of railways, have risen at least to that extent ; and in fact, if the railways at present before parliament were granted, *they could not be constructed*, because the elements of their construction could not be supplied, save at those exorbitant prices which would be perfectly ruinous to the shareholders.

It is therefore to be hoped, that the legislature, in mercy to the commercial interests, and in mercy to the railway interests themselves, will limit the amount of railways to be constructed in any one year ; we are aware that this is a most difficult task, and quite contrary to that principle which we

admit to be sound, of leaving capital perfectly unrestricted. But surely the legislature might classify those districts which most require railway accommodation; and at all events those lines which compete with those at present in existence ought to be postponed until such time as those places at present without *any* railway accommodation are supplied; every thing should be done to economize the capital of the country, and limiting as much as possible, as we have before urged, the amount to be employed in any one year to the surplus capital and savings of the country.

In the mean time, it is positively necessary that some alteration should take place in the present cumbrous manner of employing the deposits. The Accountant-General should be empowered to lend it on the security of stock and exchequer bills, or to the Bank of England at a low rate of interest.

This would be best for the depositors and the commercial community; we reject the idea of lending it on bills of exchange, those to whom it would be lent on stock and exchequer bills are the proper channels to employ it for commercial purposes.

The state of the money market has been very unsatisfactory during the month; with the exception of a few of the first class bankers, no one has had any money to lend save the Bank of England; a crisis appeared inevitable, and to avert it, the Bank agreed to make advances until the 9th of April, at which period the dividends will become payable; but for the reasons stated at the commencement of this article, we see no chance of money becoming abundant, although it may become *less* scarce.

The Bank of England lend on approved securities at $3\frac{1}{2}$ per cent., but the discount brokers take money "*on call*" at $3\frac{1}{4}$ per cent.; this clearly indicates the true state of the discount market, and the probability that money will continue at high rates for some time to come.

THE FUNDS.

Notwithstanding the great pressure for money during the month, the rise in the funds has been very considerable. At the beginning of the month Consols were 95, but as soon as it became known that the amount of deposits paid into the hands of the Accountant-General were to the extent of eleven millions and a half for *English lines only*, an amount much greater than was by many expected, and that large investments would consequently be made in stock and exchequer bills, a considerable rise took place, and consols reached $97\frac{1}{4}$; in fact the rise became so rapid in consequence of investments of the Accountant-General, or rather in anticipation of what he *might* buy, that, we presume, the directors of the railway companies became alarmed, and the investments were suspended.

The consequence of this suspension has been a reaction in the funds, from $97\frac{1}{4}$ to $95\frac{1}{2}$.

Now, we do not think a better illustration could be given of the effect of so much capital being *at once* employed in the construction of railways, as regards the cost of their construction by the sudden demand of so much labour, iron, &c., &c., than has been shown in the unnatural rise in the funds from so much money being suddenly, instead of gradually invested in them; the result in both instances will be the same after the sudden demand ceases; Consols, iron, labour, &c., will all retrograde. If the rise in Consols had been natural, railway shares (we speak of those of the established lines) would likewise have risen instead of remaining stationary, and in most cases being rather depressed than otherwise; but the public may rely that sooner or later all things will find their level, and when the result of the transactions of Parliament in regard to railways are ascertained—the bubble schemes vanished into thin air—the miserable remnants of the deposits returned to their deluded victims—and the amount of railways sanctioned brought within the limits to which they must be brought, viz., the surplus savings

and capital of the country, the public will then invest with increased confidence in *bona fide* undertakings, which even at their present prices pay handsome dividends; and, notwithstanding the favourable circumstances of last year, their traffic is yet increasing at the rate of 25,000*l.* per week, and that too in the face of a general reduction of fares and increased accommodation to the public.

The gross Receipts of Railway Traffic, made up from the week ending January 24th, to the week ending February 21st, showing likewise the Traffic of the corresponding weeks of 1845.

Total amount authorised to be raised.	Total amount already expended.	Last dividend.		NAME OF RAILWAY.	1846.	1845.
		Per share.	Per cent. per annum.			
£	£	£ s. d.	£ s. d.		£	£
160,000	140,903	0 12 6	2 10 0	Arbroath and Forfar	Returns imperfect.	
1,441,163	1,537,367	3 0 0	6 0 0	Birmingham and Gloucester	Amalgamated with Midlands.	
—	667,823	{ 30s.,	4 0 0	Bristol and Gloucester		
800,000	589,392	{ 12s.,	2 12 0	Chester and Birkenhead		2,008 1,544
—	—	{ 13s.,				
—	—	{ 6d.				
270,000	631,258	1 4 0	3 14 0	Dublin and Drogheda	2,427	2,174
345,736	345,736	—	—	Dublin and Kingstown	3,042	2,765
900,000	153,398	8 0 0	6 0 0	Dundee and Arbroath	977	882
363,000	308,118	0 10 0	2 0 0	Durham and Sunderland	2,478	2,343
—	—	{ E 3s.				
—	—	{ N.	E. 6 <i>l.</i>	Eastern Counties and Northern		
4,644,621	4,090,328	{ 22 <i>l.</i>	N. 5 <i>l.</i>	and Eastern	25,329	14,763
1,000,000	1,086,226	1 10 0	6 0 0	Edinburgh and Glasgow	9,821	7,943
1,453,900	1,104,773	1 10 0	6 0 0	Glasgow, Paisley, and Ayr	7,170	5,382
806,666	806,134	0 5 0	2 0 0	Glasgow, Paisley, and Greenock	3,787	2,674
2,364,333	2,597,317	2 10 0	10 0 0	Grand Junction, amalgamated with Birmingham		
—	82,828	—	—	Gravesend and Rochester	476	
1,730,000	1,296,196	3 0 0	6 0 0	Great North of England		
8,180,000	8,179,980	3 4 0	8 0 0	Great Western	61,607	55,404
—	—	—	—	Hartlepool	3,549	
—	701,740	1 10 0	6 0 0	Hull and Selby, amalg. with York & N. Midland		
2,657,375	1,774,331	5 0 0	10 0 0	Liverpool and Manchester, amalg. with Birmingham		
6,412,000	6,597,065	5 0 0	10 0 0	Lond. and Birm. & Grand Junc.	127,655	105,776
1,065,000	1,077,802	0 2 0	1 4 0	London and Blackwall	2,725	3,283
2,990,000	2,683,673	1 0 0	4 0 0	London and Brighton	13,988	12,558
821,333	642,592	0 7 0	3 10 0	London and Croydon	4,261	2,003
4,312,000	2,620,794	1 17 6	9 0 6	London and South Western	20,443	18,029
2,893,000	1,906,062	1 3 10 <i>l.</i>	6 2 4	Manchester and Birmingham	16,051	12,990
4,743,333	3,372,340	2 18 0	8 6 0	Manchester and Leeds	21,551	ret. imp.
650,000	842,725	2 14 0	5 16 0	Manchester and Bolton, & Bury	3,662	3,292
6,316,800	6,836,102	3 13 9	7 7 6	Midland	61,645	47,942
1,250,000	1,137,385	—	5 0 0	Newcastle and Carlisle	6,230	5,881
—	1,272,031	1 2 6	9 0 0	Newcastle and Darlington	9,932	4,100
210,000	316,969	1 5 0	2 0 0	Newcastle and North Shields	1,644	1,368
—	873,818	0 10 0	5 0 0	Norfolk	4,618	ret. imp.
—	1,060,551	3 7 6	6 15 0	N. Union & Bolton & Preston, amalg. with Man. and Leeds		
450,000	432,014	0 12 6	2 10 0	Preston and Wyre	1,783	1,417
1,633,000	1,313,225	—	5 0 0	Sheffield and Manchester	5,949	2,419
3,817,277	4,294,994	0 16 0	3 4 0	South-Eastern and Dover	19,480	17,338
640,000	611,073	2 6 11	3 14 6	Taff Vale	4,029	3,191
933,036	358,353	—	5 10 0	Ulster	Returns imperfect.	
998,696	1,632,859	50 <i>s.</i> , 25 <i>s.</i>	10 0 0	York and North Midland	17,444	8,481
FOREIGN RAILWAYS.						
1,690,000	2,062,916	0 18 9	8 0 0	Paris and Orleans	Returns imperfect.	
1,440,000	—	0 18 6	8 0 0	Paris and Rouen	19,832	15,664

RAILWAY SHARE LIST.

Shares.	Railways.	Paid.	Closing Prices.			
			Feb. 2.	Feb. 10.	Feb. 17.	Feb. 24.
£		£				
50	Aberdeen	10	1 1/2 pm	1 1/2 pm	par	1 1/2 pm
100	Amber, Nott., Boston, & E. Jun.	24	131	131	135	135 ex d
25	Birmingham and Gloucester ..	17 1/2	31	31	31	30
20	Do. New (issued at 7 1/2 dis.) ..	2	par	1 pm	1 pm	1 1/2 pm
100	Birmingham and Oxford Juno.	70	87	88	88	87
35 1/2	Bristol and Exeter	5	64	71 pm	7	8 pm
50	Do. New	30	25	27 pm	25	25 pm
90	Bristol and Gloucester	42 1/2	..	..	..	..
50	Buckinghamshire	10	4 1/2	5	4 1/2	4 1/2 pm
25	Do. 1/2 Shares	2 1/2	1 1/2 pm	1 1/2 pm	1 1/2 pm	1 1/2 pm
25	Do. Extension	2 1/2	1 1/2 pm	1 1/2 pm	1 1/2 pm	1 1/2 pm
50	Cambridge and Oxford	1 1/2	1 1/2 pm	1 1/2 pm	1 1/2 pm	1 1/2 pm
50	Chester and Holyhead	26	1 1/2 pm	1 1/2 pm	1 1/2 pm	1 1/2 pm
20	Churnet and Blythe	2	..	..	..	..
25	Cork and Waterford	1 1/2	..	..	..	..
50	Cornwall	5	1 1/2	1 1/2	1 1/2	1 1/2
50	Direct Manch. (Ramington's) ..	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2
25	Do. do. (Rastrick's)	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2
25	Direct Northern	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2
50	Dublin and Belfast Junction ..	5	1	2 pm	1	2 pm
50	Dublin and Galway	5	1	2 pm	1	2 pm
50	Dundalk and Enniskillen	5	1	2 pm	1	2 pm
Average	Eastern Counties	14.16.0	21 1/2	22 1/2 ex d	22 1/2	22 1/2
14.16	Do. New	8.16.0	7	7 1/2 pm	7 1/2	7 1/2 pm
6.13.4	Do. Perpet. 5 per cent. No. 1.	6.13.4	1	1 pm	1	1 pm
6.13.4	Do. do. No. 2	6.13.4	1	1 pm	1	1 pm
20	Do. York Extension	10 1/2	..	..	..	..
50	East Lincolnshire	1 1/2	1	1 1/2	1 1/2	1 1/2
25	Edinburgh and Glasgow	50	75	77	78	78
25	Do. 1/2 Shares	5	..	..	..	..
12 1/2	Do. 1/2 Shares	12 1/2	17	19	18	20
12 1/2	Do. New 1/2 Shares	10	5	6	5	7
25	Edinburgh and Perth	3	..	..	..	..
25	Ely and Huntingdon	5	par	1 pm	1 pm	1 pm
25	Gloucester, Abergystwith, and Central of Wales	1 1/2	..	..	..	..
20	Goole, Doncaster, & Sheffield	42 1/2	1 1/2	1 1/2 pm	1 1/2	1 1/2 pm
25	Grand Union (Notting. & Lynn)	1 1/2	1 1/2	1 1/2 pm	1 1/2	1 1/2 pm
20	Great Eastern and Western ..	2 1/2	..	..	..	..
20	Great Grimby, Louth, Horn-	42 1/2	..	..	..	..
20	castle, Linc., and Mid. Juno.	..	..	..	..	..
50	Great South. & West. (Ireland)	15	6	8 pm	6	8 pm
50	Do. Extension	12 1/2	6	8 pm	5	7 pm
100	Great North of England	100	213 1/2	217 1/2	217 1/2	223 1/2 ex d
40	Do. New	5	46	47 pm	46	48 pm
30	Do. New	5	27	29 pm	29	31 pm
15	Do. New	1 1/2	..	..	..	..
100	Great Western	85	80	83	81	83 pm
50	Do. 1/2 Shares	50	41	43 pm	42	44 pm
25	Do. 1/2 Shares	5	14 1/2	15 1/2	14 1/2	15 1/2
20	Do. Fifths	20	17	18 pm	16 1/2	17 1/2
50	Guildford, Fareham, & Ports.	5	..	..	..	..
50	Hull and Selby	10	105	107	106	108
12 1/2	Do. 1/2 Shares	12 1/2	8 1/2	9 1/2 pm	8 1/2	9 1/2 pm
25	Do. 1/2 Shares	7	19 1/2	20 1/2 pm	20	21 pm
50	Lancaster and Carlisle	35	21	23	21	23 pm
20	Do. New	5	..	..	..	..
20	Leicester and Birmingham	22 1/2	1 1/2	1 1/2 pm	1 1/2	1 1/2 pm
20	Leicester and Bedford	22 1/2	1 1/2	1 1/2 pm	1 1/2	1 1/2 pm
20	Leicester, Tamw., Cov., Birm., and Trent Valley Junction ..	42 1/2	1 1/2	1 1/2 pm	1 1/2	1 1/2 pm
25	Liverpool and Leeds Direct ..	2 1/2	1	1 1/2	1	1 1/2
25	Liverpool, Manchester, and Newcastle Junction	2 1/2	..	..	..	..
Stock	London and Birmingham	100	226	229	228	230
32	Do. Thirds	16	35	37 pm	35	38 pm
25	Do. Quarters	2	25	27 pm	25	27 pm
20	Do. Fifths	2	23	25 pm	23	25 pm
25	London and Birm. Extension ..	1 1/2	1 1/2	1 1/2 pm	1 1/2	1 1/2 pm
Average	London and Blackwall	16.13.4	8 1/2	9 1/2 pm	8 1/2	9 1/2 pm
50	Do. New	2 1/2	1	1 1/2 pm	1	1 1/2 pm
50	Do. Extension	5	..	..	..	..
50	London and Brighton	50	68 1/2	69	67 1/2	68 1/2
50	Do. Consolidated Eighthths ..	40	10	15 pm	13	18 pm
50	Do. do. Fifths	90	..	..	..	..
Average	London and Croydon	13.15.9	22 1/2	22 1/2	22 1/2	22 1/2
9	Do. Guaranteed 5 per Cent. ..	9.0.0	1	1 ex d	1	1 pm
Average	London and Greenwich	12.15.4	10	11	9	10
Average	Do. Preference or Privilege ..	18.17.9	22	24	22	24
Average	London and South Western ..	41.6.10	78	80	79	81
40	Do. New Consol. Eighthths ..	28	14	16 pm	14	16 pm
50	Do. New	7 1/2	10	11 pm	10 1/2	11 1/2 pm
40	Do. New	6	7	9 pm	7	9 pm
50	London and York	2 1/2	1 1/2	1 1/2 pm	1 1/2	1 1/2 pm
25	Do. 1/2 Shares	2 1/2	..	..	..	..
25	London, Warwick, and Kidderm.	2 1/2	1	1 1/2	1	1 1/2
50	London, Salisbury, and Yeovil ..	2 1/2	1	1 1/2	1	1 1/2

Shares.	Railways.	Paid.	CLOSING PRICES.			
			Feb. 3.	Feb. 10.	Feb. 17.	Feb. 24.
£		£	dis —	dis —	dis —	dis —
50	Londonderry and Coleraine ..	5	1 — 2 pm	1 — 2 pm	1 — 2 pm	1 — 2 pm
50	Londonderry and Enniskillen ..	5	1 — 2 pm	1 — 2 pm	1 — 2 pm	1 — 2 pm
25	Lynn and Ely ..	5	1 — 2 pm	1 — 2 pm	1 — 2 pm	1 — 2 pm
25	Lynn and Dereham ..	5	1 — 2 pm	1 — 2 pm	1 — 2 pm	1 — 2 pm
100	Manchester and Leeds ..	88	52 — 55 pm	52 — 55 pm	50 — 54 pm	48 — 52 pm
50	Do. Shares ..	38	22 — 25 pm	22 — 25 pm	20 — 24 pm	20 — 24 pm
25	Do. Shares ..	2	12 — 14 pm	12 — 14 pm	11 — 13 pm	11 — 13 pm
25	Do. Fifths ..	1	11 — 12 pm	11 — 12 pm	10 — 11 pm	10 — 11 pm
64	Do. Sixteenths ..	62	3 — 4 pm	3 — 4 pm	3 — 4 pm	3 — 4 pm
40	Do. Extension ..	42	.. ..	.. ..	.. ..	.. ..
40	Manchester and Birmingham ..	40	77 — 79 pm	78 — 80 pm	78 — 80 pm	77 — 79 pm
10	Do. Shares, A ..	4	7 — 8 pm	7 — 8 pm	7 — 8 pm	7 — 8 pm
10	Do. do. B ..	2	7 — 8 pm	7 — 8 pm	7 — 8 pm	7 — 8 pm
10	Do. do. C ..	1	.. ..	.. ..	.. ..	.. ..
30	Do. Contin. and Welsh Junc. ..	14	.. ..	.. ..	.. ..	.. ..
30	Manch., Buxton, and Matlock ..	42	14 — 9 pm	14 — 9 pm	14 — 9 pm	14 — 9 pm
30	Manchester and Southampton ..	2	.. ..	.. ..	.. ..	.. ..
Stock	Midland ..	100	180 — 183 ex d	182 — 184 ex d	180 — 182	145 — 148
Stock	Do. New ..	12	16 — 17 ..	16 — 17 ..	16 — 17 ..	14 — 15 pm
Stock	Do. Birmingham and Derby ..	100	180 — 182 ..	181 — 183 ..	180 — 182	116 — 118
25	Newcastle & Darlington Junc. ..	25	19 — 21 ex all	21 — 22 ex all	18 — 20 pm	18 — 20 pm
25	Do. New ..	1	.. ..	.. ..	.. ..	.. ..
25	Do. New, Brading ..	20	19 — 21 ..	20 — 22 ..	18 — 20 pm	18 — 20 pm
25	Newcastle and Berwick ..	10	11 — 12 pm	12 — 13 pm	12 — 13 pm	11 — 12 pm
50	Newry and Enniskillen ..	24	.. ..	.. ..	.. ..	.. ..
25	Newark, Sheffield, and Boston ..	24	dis —	dis —	dis —	dis —
25	North British ..	17	8 — 7 pm	7 — 8 pm	7 — 8 pm	7 — 8 pm
18	Do. Shares ..	34	34 — 4 pm	34 — 4 pm	34 — 4 pm	34 — 4 pm
18	Do. Carlisle Extension ..	25	.. ..	.. ..	.. ..	.. ..
25	Do. Dalkeith ..	25	.. ..	.. ..	.. ..	.. ..
5	Do. do. ..	5	.. ..	.. ..	.. ..	.. ..
30	Northern and Eastern ..	50	69 — 71 pm	71 — 73 pm	70 — 72 pm	70 — 72 pm
30	Do. Serp. (issued at 5 disc.) ..	40	19 — 21 pm	21 — 23 pm	20 — 22 pm	20 — 22 pm
18	Do. Shares ..	12	17 — 18 ..	17 — 18 ..	17 — 18 ..	17 — 18 ..
50	Do. New ..	1	17 — 19 ..	18 — 20 pm	18 — 20 pm	17 — 19 pm
50	North Kent and Direct Dover ..	24	.. ..	.. ..	.. ..	.. ..
20	North Staffordshire ..	42	3 — 34 pm	34 — 34 pm	34 — 4 pm	34 — 34 pm
25	North Wales ..	34	.. ..	.. ..	.. ..	.. ..
20	Norwich and Brandon ..	18	7 — 9 pm	8 — 9 pm	7 — 8 ex d	7 — 8 pm
10	Do. New ..	3	34 — 4 pm	4 — 5 pm	4 — 5 pm	4 — 5 pm
50	Northampton, Banbury, and Cheltenham ..	2	dis —	dis —	dis —	dis —
50	Oxf., Worcester, and Wolverh. ..	12	3 — 34 pm	24 — 3 pm	24 — 3 pm	14 — 2 pm
50	Perth and Inverness ..	24	.. ..	.. ..	.. ..	.. ..
25	Portsmouth Direct ..	34	34 — 35 pm	34 — 35 pm	33 — 35 pm	33 — 35 pm
25	Preston and Wyre ..	24	.. ..	.. ..	.. ..	.. ..
30	Do. Shares ..	94	.. ..	.. ..	.. ..	.. ..
28	Richmond ..	10	5 — 7 pm	6 — 7 pm	6 — 7 pm	6 — 7 pm
30	Rugby and Huntingdon ..	2	.. ..	.. ..	.. ..	.. ..
25	Scottish Central ..	74	64 — 71 pm	71 — 84 pm	84 — 94 pm	7 — 8 pm
25	Do. New ..	24	.. ..	.. ..	.. ..	.. ..
25	Scottish Midland ..	5	.. ..	.. ..	.. ..	.. ..
25	Shrewsbury, Wolverhampton, and St. Staffordshire Junc. ..	24	.. ..	.. ..	.. ..	.. ..
25	Shrewsbury and Birmingham ..	24	.. ..	.. ..	.. ..	.. ..
25	Shrewsbury and Hereford ..	24	.. ..	.. ..	.. ..	.. ..
20	Shropshire Union ..	42	.. ..	.. ..	.. ..	.. ..
50	South Devon ..	35	1 — 3 pm	1 — 3 pm	1 — 3 pm	2 — 2 pm
50	South Midland ..	42	24 — 24 pm	24 — 24 pm	24 — 24 pm	24 — 24 pm
Average	South Staffordshire Junction ..	33.24	364 — 394	364 — 394	364 — 394	364 — 394
50	Do. New (issd at £30) No. 1 ..	16	3 — 4 pm	34 — 4 pm	3 — 4 pm	24 — 34 pm
50	Do. New (£30) No. 2 ..	10	3 — 4 pm	3 — 4 pm	3 — 4 pm	2 — 3 pm
10	Do. New (£30) No. 3 ..	10	14 — 24 pm	2 — 3 pm	14 — 24 pm	14 — 24 pm
25	Do. New (issd at £15) No. 4 ..	24	.. ..	.. ..	.. ..	.. ..
20	Staines and Richmond ..	1	.. ..	.. ..	.. ..	.. ..
20	St. Alban's, Hatfield, & Hertford Junction ..	42	.. ..	.. ..	.. ..	.. ..
50	South Wales ..	5	1 — 14 pm	1 — 14 pm	2 — 14 pm	1 — 1 pm
20	Tan and Dove Valley ..	14	.. ..	.. ..	.. ..	.. ..
30	Trent Valley ..	4	16 — 17 pm	16 — 17 pm	20 — 21 pm	21 — 24 pm
20	Trent Valley and Holy Junc. ..	24	1 — 14 pm	1 — 14 pm	1 — 14 pm	1 — 14 pm
20	Vale of Neath ..	2	.. ..	.. ..	.. ..	.. ..
20	Warwickshire and London ..	42	.. ..	.. ..	.. ..	.. ..
20	Waterford and Kilkenny ..	3	.. ..	.. ..	.. ..	.. ..
20	Waterford, Wexford, Wicklow, and Dublin ..	14	.. ..	.. ..	.. ..	.. ..
50	Wexford, Water, & Valentia ..	14	dis —	dis —	dis —	dis —
50	Welsh Midland ..	24	.. ..	.. ..	.. ..	.. ..
20	Wilts, Somerset, & Southampton ..	14	dis —	dis —	dis —	dis —
50	Wilts, Somerset, & Weymouth ..	24	1 — 14 pm	1 — 14 pm	1 — 14 pm	1 — 14 pm
20	Worcester and South Wales ..	42	.. ..	.. ..	.. ..	.. ..
20	Yarmouth and Norwich ..	20	7 — 9 pm	8 — 9 pm	7 — 8 ex d	7 — 8 pm
20	Do. New ..	20	7 — 9 pm	8 — 9 pm	7 — 8 ..	7 — 8 pm
50	York and Carlisle ..	24	.. ..	.. ..	.. ..	.. ..
25	York and Lancaster ..	24	.. ..	.. ..	.. ..	.. ..
50	York and North Midland ..	50	100 — 105 ex all	100 — 105 ex all	100 — 102	95 — 100
25	Do. Shares ..	25	50 — 52 ..	49 — 51 ..	48 — 50	47 — 49
25	Do. Scarborough Branch ..	25	49 — 51 ..	48 — 50 ..	48 — 50	47 — 49
50	Do. Selby ..	30	45 — 50 ..	45 — 48 ..	44 — 46 pm	43 — 45 pm
25	Do. Extension ..	15	18 — 20 ..	18 — 19 ..	17 — 18 pm	17 — 18 pm
25	Do. E. & W. Riding Extens. ..	1	.. ..	.. ..	.. ..	.. ..

FOREIGN RAILWAYS.

Shares.	Railways.	Paid.	CLOSING PRICES.			
			Feb. 2.	Feb. 10.	Feb. 17.	Feb. 24.
£ 25	Barbadoes	£ 1	1½ —	2 pm	1½ —	2 pm
20	Boulogne and Amiens	10	1½ —	2 pm	1½ —	2 pm
20	Bordeaux, Toulouse, & Cette, (Mackenzie's)	2	1½ —	2 pm	1½ —	2 pm
20	Bordeaux, Toulouse, & Cette, (Espelet's)	2	1½ —	2 pm	1½ —	2 pm
20	Calcutta & Diamond Harbour	7a.	1½ —	2 pm	1½ —	2 pm
20	Central of Spain	2	1½ —	2 pm	1½ —	2 pm
20	Ceylon	5a.	1½ —	2 pm	1½ —	2 pm
20	Demerara	2	1½ —	2 pm	1½ —	2 pm
20	Dendre Valley	2	1½ —	2 pm	1½ —	2 pm
20	Dutch Rhenish	5	1½ —	2 pm	1½ —	2 pm
20	East Indian	5a.	1½ —	2 pm	1½ —	2 pm
20	Great Indian Peninsula	5a.	1½ —	2 pm	1½ —	2 pm
20	Gr. North. of France (constitd.)	5	1½ —	2 pm	1½ —	2 pm
20	Great Paris and Lyons	2	1½ —	2 pm	1½ —	2 pm
20	Great Western Bengal	5a.	1½ —	2 pm	1½ —	2 pm
20	Great Western Canada	3a.	1½ —	2 pm	1½ —	2 pm
20	Jamaica South Midland Junc.	1	1½ —	2 pm	1½ —	2 pm
15	Jamaica North Midland	1	1½ —	2 pm	1½ —	2 pm
20	Do. Extension	1	1½ —	2 pm	1½ —	2 pm
20	Jersey	1	1½ —	2 pm	1½ —	2 pm
20	Louvain and Jemeppe	4	1½ —	2 pm	1½ —	2 pm
20	Lyons and Avignon	2	1½ —	2 pm	1½ —	2 pm
20	Luxembourg	4	1½ —	2 pm	1½ —	2 pm
20	Namur and Liege	4	1½ —	2 pm	1½ —	2 pm
20	Orleans and Vierson	10	1½ —	2 pm	1½ —	2 pm
20	Orleans and Bordeaux	5	1½ —	2 pm	1½ —	2 pm
20.16.8	Over-Yssel	4.3.4	1½ —	2 pm	1½ —	2 pm
20	Paris and Lyons (Laffitte's)	2	1½ —	2 pm	1½ —	2 pm
20	Do. do. (Gannone's)	3	1½ —	2 pm	1½ —	2 pm
20	Do. do. (Caton's)	2	1½ —	2 pm	1½ —	2 pm
20	Do. do. (Sud Est)	2	1½ —	2 pm	1½ —	2 pm
20	Paris and Orleans	30	1½ —	2 pm	1½ —	2 pm
20	Paris and Rouen	30	1½ —	2 pm	1½ —	2 pm
20	Paris and Strasbourg (Gannone's)	2	1½ —	2 pm	1½ —	2 pm
20	Do. do. (Compagnie de l'Est)	2	1½ —	2 pm	1½ —	2 pm
20	Rouen and Havre	20	1½ —	2 pm	1½ —	2 pm
20	Sambre and Meuse	6	1½ —	2 pm	1½ —	2 pm
14	Strasbourg and Basle	9	1½ —	2 pm	1½ —	2 pm
20	Tours & Nantes (Mackenzie's)	4	1½ —	2 pm	1½ —	2 pm
20	Do. do. (Laffitte's)	2	1½ —	2 pm	1½ —	2 pm
20	West Flanders	4	1½ —	2 pm	1½ —	2 pm

DAILY PRICE OF STOCKS FOR FEBRUARY,

AT THE CLOSE OF THE MARKET.

Fe- bruary.	India Stock.	Bank Stock.	Cons. money.	Cons. Acct.	3 per ct. red.	New 3½	Long Anns.	India Bonds.	Ex. Bils.
2	257	207	244	254	253	271	104	30 pm.	25.8 pm.
3	—	207½	244	254	253	271	104	—	25.3
4	257½	208	244	254	253	271	104	37 pm.	25.5
5	258	—	244	254	253	271	104	—	25.8
6	258	208½	244	254	253	271	104	41.5 pm.	26.40
7	258	—	244	254	253	271	104	Nothing done	27.40
9	—	208	244	254	253	271	104	—	26.41
11	260	209	244	254	253	271	104	45	—
12	—	207½	244	254	253	271	104	—	27.40
13	260½	—	244	254	253	271	104	—	—
14	—	208½	244	254	253	271	104	40	26.40
16	259	208	244	254	253	271	104	38.40	26.7
17	258	207½	244	254	253	271	104	—	26.9
18	260	—	244	254	253	271	104	—	—
19	—	209	244	254	253	271	104	—	—
20	—	210	244	254	253	271	104	—	—
21	—	—	244	254	253	271	104	—	—
22	—	208½	244	254	253	271	104	—	—
24	—	—	244	254	253	271	104	—	27.9

RAILWAY REFORM*.

MR. MORRISON, the member for Inverness, who has stood forward for some years as the reformer of railway abuses and the champion of public rights, has this year come out with a pamphlet and a motion upon the subject. For ourselves we are, as we have shown on frequent occasions, by no means unmindful of the claims of the public to fair and conciliatory treatment at the hands of the great carrying monopolists of the day,—by no means blind to the narrow and illiberal policy in the latter, which has, to a considerable extent, marred both their utility and, as we fancy, their interests also. But in all such cases we are inclined to look forward to the influence of experience as the great practical reformer, being always loth to interpose superior authority in the management of commercial property, particularly when in so doing we must incur more or less the odium of committing a breach of the public faith.

First, with respect to fares :—We have always been of opinion that they have been much too high, and that the glorious secret of the penny postage has yet to be applied to these conveyances, and must one day be so with equal advantage to the shareholder and the public. When we see railway companies volunteering excursion trains, as they did all last summer and the summer before, and carrying their thousands and tens of thousands out and home, to Brighton, Dover, Cambridge, and other places, at a gross sum averaging not much more than a halfpenny per head per mile, we must imagine that they did so with profit, and that being the case, we are necessarily led to ask,—Which is most profitable, to carry fifty people at an average of twopence a mile, or five thousand at a halfpenny? Or, if it be answered that five thousand would not travel every day even if they were carried for nothing, we are yet at liberty to take a medium figure, and estimate the relative profitableness of a small load at twopence and threepence a head, or a large load at a penny or penny farthing per head. In all these calculations it should be borne in mind that in every ordinary train the dead weight of the engine and tender, and the expense of driver, guards, &c., are fixed figures, whether the available portion of the train be large or small; and that the weight of two or three carriages, more or less, makes but a small portion of the total weight to be drawn by the engine. It would be difficult to enter into detailed calculations upon this point, particularly in a general article like the present; indeed the information afforded by the officers of the various companies is not very precise in regard to it. As a rough guess, however, it might not be going too far to say that the absolute excess of expenditure required to carry twelve carriages, would not be 20 per cent. more than that required to carry half the number. This, we feel pretty certain, is an estimate within the mark; and, if so, the obvious result appears that, in fairly loaded trains, the capabilities of the traffic are more than double the proportion of the demands of the power. When we come to consider very small and inadequately loaded

* Observations on Railway Legislation, by James Morrison, Esq., M.P., 1846.
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trains, of which there are many upon every line every day, the argument in favour of increased numbers, at reduced rates, becomes still more striking and convincing. That this view of the matter has not been altogether overlooked by some of our railway directors, at least in regard to the conveyance of parcels, appears from the following paragraph which we found in the *Manchester Guardian* a few days ago:—

“ We rejoice to see the application of a low uniform rate of carriage, whatever the distance, adopted on railways, and of railways of the same company, so far as relates to parcels of small bulk and light weight. The Manchester and Leeds Railway Company's report, presented by the directors to the proprietors on Wednesday last, stated that the principle of low fixed rates, irrespective of distance, had been applied to the carriage and delivery of parcels, not only on their own line, but also on neighbouring lines. On Monday last, at a meeting of the Trent Valley Railway Company, Mr. Edward Tootal stated that on the series of lines connecting Manchester and Liverpool with Birmingham and London, combining the London and Birmingham, Grand Junction, Manchester and Birmingham, and Trent Valley lines, in future to be under the management of an amalgamated and consolidated company, under the title of the London and North Western Railway Company, (possessing a capital of fourteen millions sterling,) all parcels under 12 lbs. weight would be carried from one end to the other, and to all intermediate places, at the uniform charge of one shilling; and that this plan was ultimately to be extended to all the lines between Falmouth or Dover at the south, and Glasgow at the north! This is one of the advantages that will result from a connected series of railways being under the sole management of one company. Another advantage very speedily to result is the establishment of telegraphs between London and Liverpool and London and Manchester, by means of which it is expected that intelligence can be transmitted between the metropolis and Manchester in three minutes or less! These great benefits are the result of a union of interests; and if the public accommodation is to be thus provided for, and at lower rates for passengers and goods, which have been promised, no one will have reason to regret the amalgamation.”

In regard to passenger traffic, the same principle of uniformity of rate could not be applied, because each person occupies a certain definite space in the train, to the exclusion of another; whereas, in the matter of parcels, they do not perceptibly affect the arrangements of the train, as the chief item of expense is chargeable to the trouble of receiving, booking, and delivery. We still hope, however, that in regard to passenger traffic also, the directors of our railway companies may find a more liberal and broader principle of dealing possible without loss or inconvenience; a larger margin in the distances determining the fares being admissible, together with a much lower scale of tariff. But this is a subject upon which we will not speculate more at present.

We come now to a second point upon which we agree with Mr. Morrison that we have been signally in error, and, as we have too much reason to apprehend, with consequences awaiting us most direful to our commercial interests. We mean the excessive speculation to which our first successes in railway enterprise led, and the shameless manner in which the poor public has been left unprotected, at the mercy of designing pretenders. We agree with Mr. Morrison that this excess of speculation has been mainly attributable to the large dividends which many of our principal lines have been paying upon their capital, under their present system of high charges. We agree with him also, in the opinion that there is a limit beyond which it is not either advisable or safe to en-

gage the capital of the nation in any one branch of industry. But we will go further upon the latter point,—that neither is it possible to launch out in such investments much further than prudence would sanction. A proof of this we have in the reaction which has latterly prevailed in the railway market—scrip of projected lines being not only at a discount, but the shares of many of the sanctioned lines being in the same predicament, their calls unpaid, and their works threatened to come to a temporary stand-still.

We have in all such cases, involving questions of over-speculation or under-speculation, a firm and enduring confidence in the natural consanguinity of cause and effect. Every body knows how absurd it is to call out to a man rushing headlong down a steep hill to stop and reflect upon what he is about. Just as vain is it to persuade a man, whose pocket has a plethora of money, not to invest it in a speculation which promises to be profitable; and, on the other hand, equally vain and unnecessary is it to tell him not to do so when his pocket is empty.

With these opinions upon the principle of the thing, it is unnecessary for us to discuss with Mr. Morrison the precise amount which might be fairly allotted out of the annual income of the country to railway works; whether twenty-five millions—or more, or less. Indeed, it would seem rash for any one to hazard an opinion as to the figure, when our Prime Minister himself, after promising to reveal the precise amount to Parliament, has hitherto hesitated to do so. As, however, Mr. Morrison's opinion upon subjects of this kind are entitled to some weight, we extract the following passage from his pamphlet:—

“We know, that in a country in a progressive state of social and commercial improvement, and in which every branch of industry is rapidly extending, a great demand must exist for investments for a vast variety of objects, having an equal claim with railways to the consideration of Parliament. A large amount of capital is annually required to meet the immense expenditure incurred in adding to our towns, and in the construction of the new establishments which are constantly arising and spreading on all sides in the great seats of manufacturing industry. And, not to speak of other demands, an outlay of many millions a year will certainly be required for many years to come, in carrying on those most beneficial improvements in draining and agriculture that are now everywhere practised or called for, and that have already made such immense additions to the productive capacities of the country. I am inclined to think that those whose opinion upon such a subject is best entitled to consideration would regard it as a very liberal estimate were it to be supposed that twenty, or at most five-and-twenty millions a year could be advantageously applied to railways.

“But it appears that we are actually expending twenty-four millions a year, or thereabouts, on the railways now in progress; and the immense number of railway projects which it is supposed will be sanctioned in the course of the present session, will, if they take effect, double, or it may be, treble this expense; that is, they will double or treble the sum which the country can conveniently spare for such projects. So disproportionate a drain on our resources cannot fail greatly to raise the value of money, and consequently to occasion much distress. Indeed there is very little doubt that this effect would have been already produced to such an extent as seriously to inconvenience trade, had not the last two or three years been a period of large, or probably I should say, of unprecedented profits. But it would be dangerous to assume that these will continue. All experience shows that periods of great prosperity are sooner or later followed by a reaction.

"An excessive expenditure upon railways would not only raise the value of money, to the great inconvenience of the manufacturing and trading interests, and of landholders whose estates are encumbered; but it would farther tend to produce a serious derangement in the labour market.

"Already we have complaints on all hands that, from the inducement held out by the high wages paid to those engaged in them, labourers are leaving other employment for railways. And in some cases, as in the vicinity of Glasgow, the price of coals is rapidly advancing, from the difficulty of getting labourers to work in the mines. It is true, that a steady, gradual, and permanent increase in the demand for labour is above all things to be desired. But a sudden and violent demand, drawing, by the temptation of high wages, great numbers of people from their usual modes of life, to engage in an employment which must necessarily terminate in a few years, and which will most probably come to a stand on the occurrence of a bad harvest or a commercial revulsion, must, in every point of view, whether moral or economical, be productive of the most baneful effects."

To return now to the subject of fares, to which Mr. Morrison devotes himself, and upon a proper adjustment of which he chiefly bases his scheme of reform. We confess that our first opinion upon this point is very much in accordance with that in regard to railway speculation,—namely, that things should be left to themselves, and the Directors learn from experience how much their interests and those of the public depend upon one another. And if this were a matter of ordinary commercial investment, and open to the ordinary facilities for competition, we should be right in such a view of the case. But in railway business it cannot be denied that there are many features very distinct from those of the general business of society. From the necessary circumstances of the case, a railway is to all intents and purposes a monopoly,—a monopoly defying competition, except under circumstances of discouragement, resulting from delay and expense, which would render its chance so remote and improbable as to fairly put it out of consideration as an element in the management of the affairs of the Company. It cannot be denied, moreover, that upon every principle of fairness, Parliament, in granting that monopoly, granted it with an implied compact of holding it in trust in some degree for the advantage and convenience of the public. For it must be obvious, that except upon the pretence of promoting the interests of the public, a railway company would have no grounds to call upon Parliament to lend the sanction of its high authority for the interference with the rights and property of private individuals necessary to carry their scheme into effect. The observations of the Irish Railway Commissioners, in their Second Report, so entirely express our views upon this subject, that we adopt their words in preference to any we could use:—

"So great are the powers, so vast the capabilities of a railroad, that it must, wherever established, at once supersede the common road; and not only will all the public conveyances now in use disappear, but even the means of posting will, in all probability, rapidly decline, and eventually, perhaps, cease to be found along its line. These effects may be expected as the necessary consequences of opening a railway. Its superiority is too manifest and decided to admit of rivalry; it possesses almost unlimited means of accommodation; no amount of traffic exists on any road, or is likely to exist, which a single railway is not capable of conveying; no concourse of passengers which it cannot promptly dispose of; the velocity of the locomotive, when impelled even at a very considerable reduction of its

full power, surpasses the greatest speed which the best appointed coach, on the best made road, can maintain : in short, where the capabilities of the system are brought fully into operation, they present such an accumulation of advantages, as to render it an instrument of unequalled power in advancing the prosperity of a country.

"It therefore deeply concerns the public, whose welfare is inseparably connected with all that tends to improve the internal resources, or to maintain the commercial and manufacturing superiority of these countries, that such works should be promoted ; and, consequently, every encouragement, consistent with the regard due to other interests, should be given to capitalists who may be willing to undertake them. Their propositions should be submitted to a competent and duly constituted tribunal ; and, if approved, should be adopted and stamped as national enterprises. As such, they should be protected from all unnecessary expense—from extravagant demands for compensation—from vexatious opposition, and from the ruinous competition of other companies. To that extent they have a strong claim on the protection of the State.

"But, on the other hand, the public interest would require that they should be bound by such conditions, and held subject to such well-considered regulations and effective control, as shall secure to the country at large the full benefit and accommodation of this admirable system.

"The practice hitherto followed in England has been almost the very reverse of that which we here recommend. No preliminary steps are taken on behalf of the public, to ascertain whether the proposed railroad be well adapted to its specific object, or calculated to form a part of a more general system. The best and the worst devised schemes are entertained alike, being equally exposed to opposition, and left equally unprotected against the difficulties which interested parties may raise up against them. Nay,—a railway bill may be passed, or it may be rejected ; but the fate of the project merely proves the number and influence of its respective supporters or opponents. Its failure or success is no test whatever of its merits, as a measure of general utility ; for that consideration forms a very small part of the inquiry before Parliament.

"Lastly, as to economy ; it may, without fear of contradiction, be stated, that the practice hitherto followed leads necessarily to the highest possible rates of charge. The expenses, which are generally excessive, of obtaining the sanction of Parliament, the exorbitant payments frequently extorted as compensation, or to buy off a vexatious opposition ; the superfluous and wasteful profusion often displayed in the construction of the work itself, all concur to demand a large return from the public ; which the proprietors, as carriers, being unrestricted as to the rates of charge, will not fail to enforce. And they will the less scruple to do so, because competition, the usual remedy against a disregard of the public accommodation, would be ruinous, and can, in such cases, be rarely resorted to."

These are considerations which Parliament has hitherto strangely neglected ; or if they have attempted to meet them at all, have done it so inadequately, as to leave the apprehended evil almost without a remedy. We by no means sanction the principle of government or parliamentary interference with the management of the property of individuals ; but in the case of railways, so vitally involving the commercial interests of the community, there appears to be a ground for reserving a power in extreme cases, to be held over the heads of wrong doers as an element of moral influence. Parliament, indeed, asserted something of this principle, when they limited the powers of railway companies, in granting their acts originally. They have asserted it still more strongly since, when

passing the Post Office Act, and other provisions relating to the regulation of railways.

We consider it certainly a most grievous error on the part of parliament, that, in the beginning of railway legislation, they did not assert what they have since partially assumed, namely, a power to revise the tariff of railways from time to time. The reservation of this power would, we apprehend, be amply sufficient, without a single occasion, perhaps, for bringing it into operation; and the principle upon which it might be asserted appears to us to be a very just and rational one. Railway monopoly is granted in the first instance, limited to a certain tariff, having a view to a certain rate of dividend, calculated upon estimates of expenditure and receipt, the best which the then existing experience afford. But it is notorious that the expense both of constructing and working railways has very considerably diminished since the first great experiment in railways was made, and common sense and common equity would suggest that the tax upon the public in the way of fares and toll should be relaxed proportionately.

But, at the same time, whilst we would advocate, and indeed if necessary enforce, a low tariff of charges, as likely to prove equally advantageous to the railway companies themselves, and the public, we would by no means do it in the spirit which seems to pervade Mr. Morrison's pamphlet now under consideration. It is very true that some of the principal lines of railway pay very large dividends, some as high as 10 per cent. But do we grudge the shareholders this reward for their enterprise? Far from it. If they have reaped advantages themselves, they have, at the same time, conferred great benefits upon the community; and the greater number of them are still engaged in investing the profits of their first railway speculations in new ventures, which, though they may not be equally profitable to the promoters, will perhaps produce even more signal benefits as regards the public. For it is not merely in the great highways, which have always been the beaten track of commerce, that railways are of use to the community; it is when their branches become extended into comparatively secluded districts that their scope and power will be fully appreciable. Parliament, perhaps, committed a mistake in 1844, when they passed the act empowering the revision of tolls of future railways from time to time, but made such revision contingent upon the paying of a dividend exceeding 10 per cent., and with a guarantee annexed of making up a 10 per cent. dividend to the shareholders as long as the revised tariff continued in force. We all know how easy it is in the management of public companies to keep down a dividend, if it be considered desirable; or to put a promising or discouraging aspect upon affairs as circumstances may seem to dictate. This error, however, was remedied in 1845, with regard to all railways hereafter to be made, parliament reserving a general power of revising the fares whenever it might see fit. In regard to the lines established previous to the year 1845, it would certainly in our opinion be desirable on public grounds that they should be open to a similar power of revision; but this would be an interference with the rights of property, which parliamentary practice would hardly sanction. The same end, however, might be attained, in a greater or less degree, by imposing the necessary restrictions upon any occasion where the sanction of parliament was re-

quired for the amalgamation of smaller lines with the old trunks. In fact, looking generally at the case, we consider that the old companies, considering the power of parliament to authorize dangerous rivals, and considering the force of public opinion which would be loudly called forth by a perseverance in practices amounting to or savouring of extortion, would willingly submit themselves to a fair jurisdiction in this matter. We have all seen that in regard to the penny-a-mile, or parliamentary, carriages, which were only enforced upon the new companies, the old ones voluntarily conformed to the system: and, upon similar principles, we are convinced that they would do the like in other points in which a strong public necessity appeared to be involved.

Mr. Morrison, however, would go to work in a more hostile spirit, and though he does not dare in plain language to propose a direct interference with the property of the London and Birmingham or Great Western Companies, recommends the use of the implement of competition, in a spirit which we cannot consider either just in itself, or consistent with national good faith.

"It has been contended that the immense outlay by most of the leading English railway companies, occasioned by the great excess in the cost per mile of their lines over the cost of lines in other countries, justifies and renders necessary the maintenance of a proportionally higher rate of fares on the English railways. But the rate of dividend on the stock of several of these companies is 10 per cent. And it does not follow, whatever may have been their cost, that they should be allowed to monopolize the traffic between the towns and districts which they connect, to insure so great a dividend to their proprietors. No such monstrous proposition as this can be entertained. If a new line could in any case be constructed for half the expense of an existing line, or supposing the expense to be the same, if it were constructed by parties who would be satisfied with a dividend of 5 instead of 10 per cent., parliament is bound to sanction the new line, unless the company make a corresponding reduction in the fares on the present line.

"If railways may now be constructed for 20,000*l.* per mile, where 50,000*l.* was formerly expended, do those who have laid out the latter sum imagine that parliament or the public will grant them such a protection from competition as may enable them by high rates of charge to obtain a profit of 10 per cent. on that part of their capital which has been wasted, as well as on the part which would now suffice to construct their lines? If the shareholders of the London and Birmingham, the Great Western, and other railway lines, believe that they are to be permitted to flourish at the expense of the public by means of that *protection* which is hunted down on all sides, I apprehend they will experience a disappointment. The monopoly of the landowner is not to be suppressed to make way for the monopoly of railway speculators. The latter must accommodate themselves to the new order of things. The proprietors of an old line of railway are in the position of a manufacturer who, having constructed machinery on an old and expensive plan, finds it superseded by more economical or powerful machinery: but were such a man to attempt to obtain a higher price for his work than would remunerate those who work with the improved machinery, and asked parliament to assist him in doing this, should we not consider him as fitter for Bedlam than for the Exchange?"

Now, in these observations, Mr. Morrison treats railways just as he would a matter of general commerce or manufacture, open to every body to try his fortune at when he thought proper, and without the sanction of any superior authority. It is obvious, however, that the cases are by no means parallel. The railway company undertakes a great work, a

work which is intended to last for ages, under sanction of parliament, and under the implied assurance that they shall enjoy, without unnecessary molestation, the fruit of their labour and enterprise. Mr. Morrison himself, in another part of his pamphlet, expatiates upon the ruinous consequences of laying down too many miles of railway; of establishing, for instance, two lines of railway between given termini, instead of one, for the mere purpose of competition. Yet if the principle involved in the passage just quoted were carried out, one of these results must occur,—either that a second line of railway, at a cost of 20,000*l.* a mile, must be laid down, to compete with one which cost 50,000*l.* a mile, or that the latter must be worked at a loss, or at best an inadequate profit upon the original outlay. That outlay, be it remembered, was undertaken upon the best means of information which the times at which the work was commenced afforded,—it was sanctioned by parliament,—and it would, we humbly submit, be nothing less than robbery for parliament now to turn round and say, we will treat you strictly according to the present rate of things, even though it virtually inflict upon you a penalty for having been the first to lead the way in this great and useful field of enterprise.

We are inclined to look at railway enterprise in this country rather as a grand and general scheme, in which the more profitable will compensate for the less profitable lines; and viewing the subject in this light, there appears to be an obvious fallacy in the complaint suggested in the following passage in Mr. Morrison's pamphlet:—

“The subject of railway amalgamation, which is now going on to such an immense extent, is one which demands the immediate attention of parliament. Mr. Gladstone's bill of 1843 provided that, in the case of future railways, after the payment of a dividend of 10 per cent., the surplus revenue of the company should be applied to the reduction of charges to the public. Now, whatever may be thought of this provision, seeing the infinite number of ways in which it may be evaded, it at all events imposes on parliament the duty of watching amalgamation bills, lest they make an end of the advantages, such as they are, which Mr. Gladstone's act was intended to secure to the public. For it is plain that a railway which yields a large revenue, and which may therefore come within the 10 per cent. clause, may, by amalgamating with a less profitable line, reduce the dividend on the larger capital, formed by the union of the two, below the rate at which the provision comes into effect, and may consequently *defeat it altogether.*”

If only the most profitable lines, or the most profitable portions of lines were to be worked, the existence of railways would rather effect an injury than otherwise to the country, by rendering the inequality of populousness and circumstances in different districts greater than they would naturally be. The absorption, therefore, of the less frequented lines by the great railway trunks of the country, is, in our opinion, a matter to be encouraged; for by no other means probably could they be kept in efficient operation.

And now a word upon the enormous profits of railways, which Mr. Morrison so begrudges their proprietors. This gentleman only talks of the fact of several of them “paying a dividend of 10 per cent.” But he does not tell us how many pay much less, and how many for a long time paid none at all. In 1842 we find, out of thirty-nine railways, that four paid 10 per cent., one $7\frac{1}{2}$ per cent., four 6 per cent., four 5 per cent., three 4 per cent., three $3\frac{1}{2}$ per cent., twelve paid 3 or less than

3 per cent., some of them as low as $1\frac{1}{2}$ and $\frac{1}{2}$ per cent.; and of the remaining eight there is no mention of a dividend. In 1845 four railways paid 10 per cent., three 9 per cent., two 8 per cent., one 7 per cent., one $6\frac{3}{4}$ per cent., seven 6 per cent., one $5\frac{1}{2}$ per cent., nine 5 or less than 5 per cent., four less than 4 per cent., five 2 or $2\frac{1}{2}$ per cent. The general average of dividend upon the whole amount of capital expended in such working lines was, in 1842, $5\frac{3}{4}$ per cent.; now it may be stated at somewhat more, perhaps 6 or $6\frac{1}{2}$ per cent. But out of this it should be recollected how much is reinvested in railways yet in course of construction, and the return from which is a remote and, in some cases, doubtful contingency. Upon the whole, considering how purely experimental the first investments in railways were, how discouraging their aspect was for a long time to those who had embarked in them, and how much money had to be raised in loans at expensive rates of interest, we do not think that the fruits hitherto reaped are so rich as to be grudgingly conceded to them.

Mr. Morrison, however, thinks differently. Railway proprietors are in his eyes a sort of rapacious monsters, whom it would be fair game to despoil and exterminate as speedily as possible, and all for the good of the state. He mightily admires the French system of concession upon leases, (we shall see how accurate his notions upon the facts of this matter are presently,) and imagines, that if we could only tickle our English Railway Companies so as to make them deliver up the fee-simple of their property at the end of a certain number of years, we should have a revenue for the use of the public sufficient to pay off the national debt. It is really droll to find an honest, plodding man of business, as Mr. Morrison has always been considered within the precincts of his own counting-house, talking such visionary nonsense. It should be observed, that he does not boldly demand that this act of confiscation should be perpetrated outright as regards existing Companies; but he certainly implies it as a necessary part of his plan; or if not, where do all his calculations result? We give this remarkable scheme in his own words:—

“It would be difficult to over-estimate the degree to which individual convenience and general prosperity may be promoted by a right policy on this subject; that is, by enforcing, in the case of the railways now before Parliament, the greatest degree of cheapness, immediate and remote, of security, and of every possible advantage, which the peculiarly favourable circumstances of our position enable us to secure. Perhaps the vast magnitude of the question with which Parliament has to deal may be best shown by comparing our railway revenue with the national debt. The interest on the latter does not much exceed 28,000,000*l.* A capital of 560,000,000*l.* therefore, if producing 5 per cent., would yield a sufficient annual revenue to pay this interest.

“Now, the cost of the railways already completed in Great Britain and Ireland is about 70,000,000*l.*, and the estimated cost of the lines now in course of present construction is more than 60,000,000*l.* But it is the opinion of every one best acquainted with the subject, that the amount already vested in railways in this country is but a small part indeed of what will ultimately be required. The host of schemes now before Parliament confirms this view; at the same time that the actual revenue on the lines already completed, and the estimated revenue from those that are being made or before Parliament, considerably exceeds 5 per cent. And if we take into account the steadily progressive and apparently boundless increase

of business on almost every line, it is more than probable that the receipts on our railways, after the system has been completed, will amount to a gigantic sum.

"At all events, it may, I am satisfied, be unhesitatingly laid down that the total revenue of our railways, in some twenty or thirty years, will amount to a large proportion indeed of the interest on our debt, or of 28,000,000*l.*; and it is neither absurd nor unreasonable to expect that it may even equal or surpass that amount. And if such be the case, it is plain that the adoption from the commencement of a system of terminable leases, which the experience of France has shown to be of easy introduction, would have relieved us within the present century, and perhaps in a much shorter time, from the burden of the whole or of the greater part of our debt.

"And happily, though we have neglected many opportunities for securing even a moderate portion of such gigantic advantages, we have still many in our power. We may deal as we please with the schemes now before Parliament; but if we neglect or throw away this opportunity of securing the public interests, none such can ever again occur. I would, therefore, beg of the Legislature and the country not to neglect or evade their duty on this occasion. Let them no longer be amused by the alleged hazard of railways. If planned with the most ordinary judgment they are peculiarly safe investments. The monopoly of the producers is on the eve of being destroyed; and do not let us in the same session, and almost in the same breath, confirm a still more odious, more oppressive, and far more indefensible monopoly on the part of the public carriers. In dealing with railways Government and Parliament should have in view the single object of securing the best terms, immediate and ultimate, for the public. The shareholders, like the landholders, may safely be left to take care of themselves; and there is infinitely little fear of their being overreached, or of their becoming parties to a bad bargain.

"It has been already seen (?) that if the French system of conceding railway lines for terms of years had been adopted in this country, a revenue adequate, or more than adequate, to defray the interest of the national debt would, at no very distant period, have accrued to the public from railways. But, though we have hitherto unfortunately overlooked such immense advantages, that surely is no reason why we should continue to overlook them. On the contrary, it should make us more anxious and more determined to profit by the means still in our power; so that by the better husbanding of them we may, in as far as possible, repair the losses occasioned by our previous folly and shortsightedness."

Mr. Morrison then calmly declares that, "it is for the interest of the Railway Companies that the existing system should be changed." We apprehend, however, that Railway Companies, like the owners of other property, will be hard to be convinced of the advantages of giving up their all for the public weal. Would not a much shorter way of settling the national debt be to get the holders of consols, &c., to give up their claims at some period convenient to themselves, their heirs, executors, and assigns?

But if persuasion fails, force it appears is to be resorted to: the force of public opinion and agitation. We cannot too strongly denounce the unblushing manner in which this is insinuated in the concluding passages of Mr. Morrison's remarkably candid and statesmanlike pamphlet:—

"It is not in the nature of things that it should be permitted to go on. Inordinate profits growing out of monopolies obtained from the want of knowledge or the carelessness of the Legislature, cannot continue for ever. They will be condemned in public opinion—an agitation will be commenced

against them, and they will be suppressed amid the cheers of all except the few who may happen to profit by them. If the existing companies be not blind to the signs of the times, they will lose no time in reducing their fares and improving their accommodations; and if Parliament be not strangely neglectful of its most sacred duties and obligations, it will take care that in the establishment of new lines the public interests shall be effectually secured."

Thank heaven we have yet a House of Lords; and as long as they have a rood of land, or a title of honour to leave to their posterity, they will never be brought to sanction this *battue* amongst the railway shareholders of England.

We come now to say a few words about Mr. Morrison's grand hobby, namely, "the French system," which, upon the principle that children are generally much wiser than their fathers, he prefers vastly to our own, and which he has strenuously advocated both in his pamphlet and in his speech in the House on the 19th of March, when he made a motion for the appointment of a "Special Committee to inquire whether, without discouraging legitimate enterprise, conditions may not be embodied in railway acts, better fitted than those hitherto inserted in them to promote and secure the interests of the public."

This motion was agreed to by the by, but what it will come to we will not pretend to prophesy. We hope it may not turn out a mare's nest, as Sir Robert Peel's famous committee did. Well, Mr. Morrison talks largely of the superior advantage of granting concessions of railways for long leases, as in France, instead of in perpetuity, as in England; and expatiates upon the hard and grinding terms which the French Government are enabled to force upon the miserable capitalists, (heaven save the mark,) who, without the aid of the government go-cart, would never have had the courage or the means to undertake works of such a character. But did it ever occur to the hon. gentleman's mind, that before you can grant a lease, long or short, there is a very important condition required, namely, that you be in possession of the land or thing leased? Now, in France, this always has been, and still is, the case: in the first instance great part of the works were executed, as well as the land purchased by the Government, and now the land is provided by the Government and let to the Railway Companies, as it were upon a building lease. And when we consider the sort of works which are generally put upon lands let out upon lease, particularly short leases, we must say we are not inclined to overrate the value of the railways which will find their way into the hands of the French Government at the end of their several terms, despite the vigilant supervision which the latter will doubtless have over the works and conduct of affairs, with a view to the resulting remainder. However this may turn out, the fact in the mean time is simply this, that the French Government provide the necessary land for their railways, and let it out to the best advantage to the Company or Companies willing to build and work the said railway for a certain term of years. In England, on the other hand, the case is very different. Here the fee-simple of every mile of land occupied by a railway is purchased by the Company, by whom it is constructed, who, moreover, are obliged to give compensation for damage and severance, to neighbouring proprietors. The money value of this difference between the two cases of the English and French railway proprietor may be judged of by the fact, that according

to the general mass of the estimates of the principal railways constructed in England, the first cost for the purchase of land has been about one-fifth of the whole outlay. Now, taking Mr. Morrison's own figures as to the value of constructed and sanctioned railways, from the reversion of which he looks to pay the national debt; that amount being £130,000,000, the cost for land is £26,000,000. At compound interest this sum would double itself in fourteen years, and quadruple itself in twenty-eight years. In a word, if the Government of this country were to provide the land for our railways, and grant it upon leases of only thirty-five years, it would by that time have paid much more than the whole original outlay upon the railway; and the Companies would be gainers rather than losers by the adoption of "the French system" *.

There are some other points connected with this subject which are so ably treated by Mr. Mangles, who replied to Mr. Morrison, that we give them in his words:—

"The honourable gentleman had dwelt much upon the excellency of the French system, but seemed to have forgotten the intermediate steps by which they had arrived at their present stage, and that in 1842 the French government had offered large advantages, such as undertaking half the expense of constructing the railways; while, as a proof that the success in this country had been a means of enabling the French to construct their railways, those advantages offered by the law of 1842 were insufficient to persuade parties to come forward and avail themselves of them. If he had not been misinformed, the honourable member himself had been one of those who drew back because the advantages offered by the French government were less than they were fairly entitled to. He (Mr. Mangles) did not pretend to say that the French system was not the best for France, but look at the practical results of the two systems. In England that system of private enterprise, with which the honourable gentleman had found fault, had been adopted and encouraged, and he found by the report of the Gauge Commissioners, that the number of miles of railway completed in the United Kingdom was 2,264; that the number of miles sanctioned in 1844 was 787; that the number of miles comprised in bills that had passed the Commons, and seem likely to be sanctioned, was about 2,840—making a grand total of miles of railway made, sanctioned, or likely to be sanctioned, up to July, 1845, in round numbers, 5,891. That was the result of the system with which the honourable gentleman found so much fault. Now what was the result in France of the system pursued there? He had endeavoured to get the most accurate information on the subject, and he believed that the French had only 376 miles of railway actually open [hear, hear]. The honourable member had dwelt much upon the advantages to be derived to the public from the cheap fares on the French railways, but had he made any accurate calculations on the subject? Did he suppose that one-tenth of those enormous lines now open in England, would have been constructed if we had pursued the French system from the beginning? Towards the north there was now railway communication almost to Newcastle, and westward to Exeter. In another direction a line was opened to Chester, and soon would be to Holyhead; while southward there were lines to Brighton and Dover; and eastward there was railway communication with Norwich. Now, he asked the honourable gentleman to estimate the difference in profits which had accrued to the merchants of Liverpool or the manufacturers of Manchester from the great lines of communication, as compared with the difficulties of transit to Marseilles, the

* The terms of concession have varied in different cases, but since 1842 we believe the concessions have been upon the principle of granting the use of the land, rent free, for a certain term, in consideration of the remainder in the whole property in the railway. The previous concessions, whatever their terms, were at least equally advantageous to the companies in effect.

great emporium of French commerce, endured by the merchants of France. Was not that a consideration of importance? It really seemed as if the very excellence and energy of the English system were brought as arguments against it, and its success adduced as a reason for preferring the French system, which, so far as success was concerned, had been a signal failure [hear, hear]. According to their own system, the French had had to pay a handsome premium to English capitalists on the Rouen and Orleans railways. It was a fact about which there could be no dispute, that very many of the French lines had been constructed by the employment of English capital; and now that the French had taken them into their own hands, it would be necessary for them to pay a considerable premium to the English capitalist, which was, in point of fact, a reward, and a very just one too, for his enterprise [hear, hear]. His belief was, though he had not the documents there to prove it, that the present prices in England were very little higher than those sanctioned by the French Legislature. At any rate, he would venture to predict, that before the terms of the French leases were out, the English fares would be lower than the French tariff. As a step towards this result, he was authorized to state that in the bill for amalgamating the London and Birmingham Railroad Company with other companies, those companies had voluntarily reduced their fares to the following maximum rates for all ordinary trains, namely—First class, 2*d.* per mile; second ditto, 1½*d.* per ditto; third ditto, 1*d.* per ditto, (as fixed by act of Parliament.) And there would be a proportionate reduction on goods."

Mr. Hayter added some important points bearing upon the comparison between the systems at home and abroad:—

"The honourable member for Inverness wished to introduce the French railway system into this country, but he had carefully avoided mentioning the Belgian railways [hear, hear]. In Belgium, every railway was free from all taxation, either parochial or general. In France, railways were not entirely free from taxation, but they were very nearly so; they were required to pay only an amount of rates equal to that which was paid by the land before the railway was constructed, while they paid no direct tax to the government [hear, hear]. Therefore, in point of fact, when they came to consider the difference between the two systems, they should recollect that in one there was a large continuous annuity to the state, and in the other scarcely any tax for the public benefit whatever. Now he would for a moment consider which of these two systems was the best. He would first suppose the case of the Great Western Railway as applicable to a French line. In France railways were granted on leases for an average period of about thirty-seven years, at the end of which time they were to become the property of the state. Now, if the 30,000*l.* paid by the Great Western Railway to the government were laid out at 4 per cent. interest, the amount at the end of thirty-seven years would be 3,201,385*l.* Therefore the government would receive in thirty-seven years an amount equivalent to three millions and upwards from that railway alone, even supposing the present taxation not to increase, while the sum contributed to local taxes would amount to an equal sum, making the entire sum contributed by that railway alone nearly equal to six millions sterling. But then, what was done in the French system? Would such a railway in France, at the end of thirty-seven years, be worth six millions, or anything like such a sum? [hear, hear.] When his honourable friend contrasted the two systems, and spoke of the enormous benefits derived by the state from the course adopted in France, he had carefully avoided all allusion to the taxation paid by the English railroads, though, had he entered into that point, he would have found that their own government derived a larger profit from railways than accrued under the French plan [hear, hear]. But there were great evils resulting from the practice of granting terminal leases, independently of this question of taxation. It was well known that short lines of railway in connexion with main lines did not

pay, and that it was only from advancing the traffic on the main line that they were enabled to be undertaken. But with a short terminable lease the interest of the company becomes less year by year, and they are thus less able and willing to develop the traffic of the country by constructing these lateral lines, which they would be induced to construct if they had a perpetual interest in the concern [hear, hear]. In fact, if they contrasted the English and French systems in any light, they would find that the plan adopted by this country was the wiser, and the more advantageous of the two to the state [hear, hear].

Mr. Hudson also made a business-like and telling speech in reply to the hon. member for Inverness, from which, however, our space will not allow us to make any extracts. It chiefly referred to the capabilities of our capitalists to carry out all really useful lines that the country might require.

THE GAUGE COMMISSION.

It seems to be now pretty generally conceded that the Report of the Gauge Commission (which we commented upon at some length in our last) has by no means settled the question. Specious, but one-sided, it seems to have been made up of the opinions, or rather prejudices, of those whom the Commissioners called before them as witnesses, rather than framed of deliberate judgment by the Commissioners from simple facts brought under their knowledge; and as the majority of narrow gauge engineers and employées was of necessity greatly superior to that of those in the broad gauge interest, the result is easily accounted for. The press, however, in treating of the subject as disposed of in the famous "Report," seem to be pretty equally divided. Government have not as yet taken any step in the matter, or given any indication of the course they intend to pursue; but, if rumour be correct, they will not go the whole hog with the narrow gauge party. Certes, if they do support the Commission, there will be this difficulty to provide for—namely, the payment of the outlay necessary to carry into effect these alterations of the broad to the narrow gauge. It can hardly be expected that the broad gauge company should be made to pay for the rod to whip themselves with, and John Bull, we fancy, will be slow to pull out a million, or a million and a half, for the sake of uniformity, and that in a system the superiority of which is, to say the least, pretty stoutly disputed.

Towards the close of the month, (March 20th,) we received two interesting publications, both bearing on this subject. The first, entitled "Observations on the Report of the Gauge Commission," is an elaborate and able document, evidently emanating from authority; the other, a pamphlet "On the Broad and Narrow Gauge," by Henry Lushington, Esq., is powerfully written, and attacks and ridicules the four Commissioners and their logical conclusions without mercy. For the present we restrict ourselves to the former publication, which treats in detail of almost every point in the Report. We extract a few passages bearing upon some of the more prominent features of the case. First, of the appointment and proceedings of the Commission:—

"The Commission being appointed in the month of July, commenced their proceedings by taking evidence in August. And here it may be right to advert to the change of circumstances which has since deprived the broad gauge lines of the able advocacy and assistance of witnesses connected with the Grand Junction Railway. Since the month of August, that Company has arranged with the London and Birmingham Company for an amalgamation of interests, and may consequently be considered as interested in the confederacy for opposing any second or competing line towards the North. Captain Huish, the secretary of that company, although he was one of the most active and energetic advocates for the Great Western lines in June last, and especially in promoting the Birmingham and Oxford Junction Railway, has been since examined by the Commission in favour of the narrow gauge. And here it is requested that a very careful perusal may again be made of the preceding circular letter, printed in the last page, as a proof of the real opinions entertained by the Directors of the Grand Junction Railway, as to the advantages of the broad gauge—and the capability of introducing it with the narrow gauge. It will be impossible, of course, in these observations, thoroughly to analyze the evidence given to the Commissioners, inasmuch as it is not yet published; but as far as the parties connected with the broad gauge have been permitted to see it, they feel bound to remark, without intending to reflect in the slightest degree upon the character of the witnesses, or upon the fairness with which they may have intended to state their views, that nearly the whole of that evidence may be resolved into arguments, opinions, and advocacy of parties deeply interested in a particular system, and long since committed strongly to that system, by the contests in which they have been engaged. No distinction is sought to be made on this point between the advocates of the narrow and the broad gauge; but in the almost total absence of impartial evidence, it certainly was important to have adopted the most rigid means of checking loose statements—of testing the value and truth of the testimony of parties so committed—of separating expressions of feeling and prejudices from sound and well-supported opinions—and repeated assertions from established facts."

The writer then takes up the question of the break of gauges, clearly showing that it is incorrect to assume that it is the sole cause of change of carriages for passengers; instancing the case of cross and diverging lines, where, as they become more numerous, the change of carriage will necessarily be frequent. With respect to goods, he contends that the effect of competition will be sufficiently beneficial to counterbalance the trouble and expense of shifting goods, instancing the following case:—"That in consequence, no doubt, of the competition of water carriage, the cost of conveying goods from Birmingham to Bristol, including the formidable change of gauge at Gloucester, was less in proportion to the distance, than that of conveying the same goods on the London and Birmingham Railway to London, without any break of gauge." He adds farther: "that the mere fear of the competition of the Oxford, Worcester, and Wolverhampton Railway, on which the much dreaded break of gauge was to occur, and which will be a considerably longer line to London, had caused a reduction of charges on the London and Birmingham Railway of twenty-five per cent., being more than ten times the amount of the whole cost of transfer which any railway company would undertake, including all risks and charges, at from two-pence to six-pence per ton."

With respect to the relative powers of the express trains on the broad and narrow gauge lines, the writer states this remarkable fact, that "On the narrow gauge line, with one exception, the express trains are con-

fined exclusively to the conveyance of first class passengers;" whereas the broad gauge express train carries both classes of passengers. He then gives the following statement:—

"The total number of passengers who have travelled in the Great Western Express Trains, upon an average of each journey, since they commenced running, on the 10th of March, 1845, is as follows:—

Total number of Journeys.	First Class.	Second Class.	Total.
596	28,697	46,581	75,278

Average per journey	48	78	126
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"Mr. Bruyères, the Superintendent of the London and Birmingham Railway, has given a statement to the Commissioners, in answer to question 1266, by which the average on their express trains may be ascertained, at the very best season of the year, viz., for the month of August, 1845:—

Down Express Trains, Number of Passengers.	(No Trains on Sundays.) Average per Train, Passengers.
1,613	÷ 26 Week days = 62."

This may have since increased, but there are no means of ascertaining it.

As to the difficulty of adapting the narrow gauge waggons to the broad gauge, the writer says:—"If the Commissioners had only sought for an explanation from those who suggested the expedient, the statements made by the opponents would have been easily refuted. If the trucks were upon springs, there would not be any difficulty in placing the waggons upon them; nor would there be any danger in securing the waggons for the journey. On an ordinary Ascot race day, 400 or 500 private carriages are thus treated at Paddington, without difficulty or accident, notwithstanding the unusual press of business at the same time." Upon the important question of the comparative dead weight in the narrow and broad gauge trains, the accuracy, and indeed the candour of the Commissioners is seriously impugned:—

"In relation to locomotive expenditure on traffic, there is a most prominent and a still more decided error in the comparison of weights of passenger trains, and in the consequent reasoning upon them in pages 16 and 17 of the report, than in the cost of construction of engines, carriages, &c.

"In the first place, in stating the passenger trains on the broad gauge at an average of sixty-seven tons, the Commissioners must have forgotten that it was distinctly stated by Mr. Gooch in evidence, and confirmed in a written report, that this weight comprehended luggage and parcel vans, mail carriages, private carriages on trucks, and horse-boxes, on all the lines, besides a considerable quantity of goods taken on the Bristol and Exeter and the Cheltenham and the Oxford branch lines, which was at that time conveyed with the passenger trains, and which consequently formed a portion of the service performed by the locomotive engines, with such trains, as explained by Mr. Gooch, whose statement did not profess to give the weight of carriages required for passengers exclusively, but simply to show the comparative cost of locomotive power for each mile of journey according to the actual load carried.

"After thus increasing the real average weight of the passenger carriages by all the goods, as well as the horse-boxes, &c., conveyed with them, this total is in the next paragraph theoretically converted exclusively into railway carriages at the estimated weight of nine-and-a-half tons per carriage,

and the absurd result is obtained that the Great Western Company run in every train on an average seven passenger carriages, which, in the usual proportion of first and second class, would contain three hundred and forty-four passengers. Surely the extravagance of this proposition might have induced the Commissioners to pause before they reasoned upon such calculations, which it can only be supposed were furnished by the narrow gauge agents.

"It is difficult to comprehend the purpose for which seven first class carriages of the narrow gauge are then referred to in the same paragraph in contrast with seven of the broad gauge, the former being on four wheels with three bodies holding eighteen persons in each, and together one hundred and twenty-six passengers, while the latter, if first class carriages, being on six wheels, with four bodies, would hold thirty-two in each carriage, and together two hundred and twenty-four passengers.

"The effect of it on a casual reader must be to leave the impression that the broad gauge requires a dead load of sixty-seven tons to convey the same number of passengers as forty-six and a half tons on the narrow gauge; the fact being, however, as within the knowledge of the Commissioners, and even recognised by the details in this very paragraph, that while the seven first class narrow gauge carriages, as stated by them, would convey one hundred and twenty-six passengers, and weigh, with the passengers and luggage, forty-six and a half tons, four first class Great Western Railway carriages would carry one hundred and twenty-eight passengers, and weigh, if full of passengers, forty-three tons only, being a dead weight of carriages of six hundred and nine pounds on the narrow gauge, but of five hundred and twenty-eight pounds only on the broad gauge, for each first class passenger.

"The comparison, if it had been made for second class passengers, (reference to which, however, must have been accidentally omitted in the Gauge Report,) would be still more in favour of the broad gauge. In evidence before the Commissioners (Question 3317) it was proved that three hundred and thirty-six pounds was the average dead weight of carriage required on the narrow gauge, and two hundred and twenty-four pounds on the broad gauge, for each second class passenger."

Two more short extracts and we have done with points of detail:—

"If the average weight of trains, so frequently quoted, be of any value as a guide to safety by avoiding the use of two engines for one train, it might have been fairly stated as an exemplification of the greater power of the Great Western engines, that with average loads of sixty-seven tons, a second engine is only employed in $15\frac{1}{2}$ out of 1000 journeys, while on the South Western it has been used with an average weight of forty tons for passengers' trains in 46 out of 1000, and on the London and Birmingham railway in 288 out of 100 journeys. * * * * In cost of locomotive power there are certain expenses which are constant and unvarying, whatever the size or power of the engine—thus, the wages of the engine-man, and fire-man will be in all cases the same; the frequency of repair, and the facility of repair, will certainly not be increased if they are not diminished, by the power of the engine; the cost of oil, tallow, and small stores, the proportion of salaries for management, clerks, and storekeepers, will be the same per engine, whatever the power or size,—the wages for cleaning and lighting fires are as nearly as possible the same—there is no appreciable difference. In the article of coke alone, is there any real difference of cost between a powerful and a weak engine—between a large and a small engine? Now, assuredly, with these plain facts well understood, it is pretty clear that the engine that will convey 83 tons instead of 55, or in the same proportion, will be relatively the most economical engine, and if the only difference of expense be the coke consumed, it would remain to show that there must be a very great waste indeed in that article, in a large and powerful engine

working below its full power, to justify the assumption of the Commissioners.

The "Observations" conclude with the following summary of the case:—

"For these and various other reasons it is humbly submitted, in conclusion, that no sufficient grounds have been shown to justify the recommendations of the Commissioners to interfere by legislative enactment with the progress of mechanical science or skill—that it would be most injurious to the public, and extremely unjust to the companies who have contributed, upon the faith of Parliamentary sanction, to construct lines of railway on the broad gauge, (thus at length proved to have been eminently successful,) to adopt any of the recommendations in the Report—that such a step must inevitably terminate all chance of future improvements in railway travelling—and arrest at once and for ever all competition, already sanctioned by Parliament, between independent systems for the public advantage, or for the development of an immense traffic, still capable of being brought into active movement throughout the country, especially in the mining and manufacturing districts in the centre of England, as well as between London and Dublin, which will afford an adequate remuneration to the promotion, as well of the narrow, as of the broad gauge lines."

REPORT UPON THE PRESENT CONDITION AND RELATIVE MERITS OF THE HARBOURS OF LARNE, LOCH RYAN, PORT PATRICK, DONAGHADEE, AND BELFAST; SURVEYED BY ORDER OF THE LORDS COMMISSIONERS OF THE ADMIRALTY, BY CAPTAIN GEORGE EVANS, R.N.

THE following report needs no comment; the abilities of Captain Evans are generally acknowledged, and at the present moment the document cannot fail to be received with interest.

Gwyder House, Whitehall, 31st January, 1846.

Sir,—In compliance with the orders contained in your letter of the 25th of November, 1845, desiring that I should proceed to examine, and report upon, the present condition of the harbours of Larne, Loch Ryan, Port Patrick, Donaghadee and Belfast,—

After a careful examination of them, I have the honour to submit the following report:—

LARNE.

This port is the safest and the easiest of access of any on the north-east coast of Ireland. Since my last report on Larne, in 1836, a very correct chart of it by Commander Mudge, R.N., has been published by the Admiralty. A lighthouse has been erected, and lit up, by the Irish Ballast Office, on the eastern side of the entrance, and a quay 200 feet long, with jetties projecting on piles, having sixteen feet water alongside them at low springs, have been constructed inside the entrance by Mr. Agnew, the proprietor of the port, at an expense of only 1,350*l*.

These improvements have rendered Larne the most eligible port of

communication with Scotland of any on the north-east coast of Ireland. If a railroad, tending to create a mercantile traffic, were constructed from Larne, either to Belfast, or the north of Ireland, the port of Larne contains the most eligible sites for docks, quays, and warehouses; which, from the abundance of materials at hand, and cheapness of labour, might be constructed, as Mr. Agnew's works prove, at a very moderate expense.

While sounding and examining Larne, I had an excellent opportunity of observing the effects of a heavy gale, from the northward right into the harbour, on the 11th of December last. I watched the entrance during the continuance of the gale, and at all heights of the tide: very little swell entered: the regular trading steamer from Portrush came in after dark, discharged part of her cargo, took in another, and departed for Liverpool in the height of the gale. During her stay in the port, which was only one hour and a half, she lay perfectly tranquil alongside Mr. Agnew's jetty.

The old rubble walls and cottages on the beach, just inside the entrance of the port of Larne, distinctly prove that for ages no sea of any violence could have entered the harbour, or, situated as they are, barely clear of highwater mark, they would have been washed away.

LOCH RYAN.

This port, which in winter frequently affords shelter to three or four hundred sail riding in perfect security, is safe of approach and easy of access, day or night, in any weather.

Since I reported on Loch Ryan in 1836, a tower has been built on Cairn Point, and I am informed that a lantern is to be placed on it this summer. When this is lit, the Cairn Point, which has seven fathoms water close to it, can be approached on the darkest night without hesitation; and nothing will be required to make it the most eligible port of communication with the north-east coast of Ireland, but a pier or jetty, for the accommodation of passengers and goods.

There are three places in Loch Ryan which have been spoken of as eligible for embarking mails, passengers, and goods, namely, Finnert Bay, Cairn Ryan, and Stranraer.

Having had a very good opportunity of observing the effects of the heavy gales of last month (December, 1845) on the different localities of this loch, I have no hesitation in declaring my opinion that Cairn Ryan is the best place either for a packet station, or the terminus of a railroad for goods or passengers.

Finnert Bay, which is two miles nearer the entrance of the loch than Cairn Ryan, is too exposed, and would require a very extensive and solid breakwater, the expense of which would far outweigh any advantage the two miles might afford; independent of which, from the nature of the present bay, it would in all probability be soon filled up with shingle.

Stranraer has certainly very good anchorage; but the present pier is dry at low water, and would require to be considerably extended. The Scur shoal is also very much in the way of vessels going up to Stranraer, in thick weather or dark nights, and passengers going to Ireland, from Glasgow and the north, would have to pass Cairn Ryan on their

way to Stanraer; thus adding five miles by land, and the same distance back again by water, to their journey.

I therefore feel justified in giving the preference to Cairn Ryan, where a very eligible site for a pier or jetty presents itself at the Claddy-house point.

A pier might be constructed in a north-west direction from the Claddy point, extending about half a cable's length, which would have from fourteen to eighteen feet alongside of it at low springs for nearly its whole length, as the Claddy point is steep too. This pier might be constructed of wood or stone, there being no pressure of sea to injure it.

The Claddy point has also the advantage of a rivulet of fresh water, which might be conveyed in pipes along the pier for the use of the vessels, filling the boilers, &c., &c., and the level ground about the Claddy point offers a most desirable site for the terminus of a railroad.

PORT PATRICK.

After a careful examination of this port, I see no reason to alter the report I made of it in 1836, and which has been confirmed by every naval officer that has been subsequently applied to, namely, that Port Patrick is not, nor ever can be made, a safe harbour, either to run for or depart from in westerly or south-westerly gales, without incurring a most enormous expense.

The plan which I have the honour to submit will show the nature of the port better than any description I can give of it in writing. It will be seen that it lies open to the prevailing winds from the westward and south-west, which cause a heavy sea to roll into it, and with such violence as to prevent any vessel lying in the outer harbour, or even in the inner one, without sustaining injury to her hull, fastenings, or engines.

The only way to subdue the swell in the inner harbour would be to remove the old pier that tends to direct it there; but the doing so would leave no place of shelter to the few small vessels trading to the port.

The present small steamers employed to convey the mails cannot get in or out of Port Patrick at low water, there being only three feet water over the bar leading to their berths. In spring-tides they lie aground, even in their berths, at low water. This circumstance not only prevents any regularity in the arrival or departure of the mails, but would render any attempt at their acceleration by a railroad useless.

During westerly and south-westerly gales, even steamers cannot enter or depart from Port Patrick without imminent risk of life.

On entering, if it be low water, they must run aground on the bar, and lie exposed to the sea: if there be water over the bar, they must depend on catching the check-ropes, when passing Mr. Cook's Craig; for, if they miss them, they run the risk of being knocked to pieces against the cliff.

On departing there is so little room to get way on the vessel, that if she be struck with two following seas at the entrance, she would in all probability lose her way, and fall off with her head towards the pier or rocks, rendering it impossible to give her either head or stern way with

the engines; so that she must either be dashed against the piers, or driven into the harbour, against Mr. Cook's Craig, there being no room to turn her, either by dropping an anchor, or the use of sails or engines.

Should any accident occur to the engines, on the first shock they receive in going out between the pier heads, the vessel must be dashed to pieces.

The lighthouse, which was erecting on the south pier head when I was there in 1836, has not been lit since 1839. It cannot be approached in bad weather; the green sea breaks thirty feet over the lantern, and the pier it stands on is so frequently under water that it has the appearance of a half-tide rock. I understand that in consequence of the foundation of the south pier giving way, which threatened the destruction of the lighthouse, a vast quantity of stones weighing several tons each, were a few years ago thrown into the outward angle of the south pier and jetty.

These large blocks, instead of protecting the masonry during the westerly gales, acted as battering-rams for its destruction, being hurled against the angle with such force as to cause considerable damage.

They finally disappeared, having been driven in various directions after pounding themselves to pieces.

The north pier, as will be seen by the plan, fortunately has not been finished; for if it were, it would be a very hazardous experiment to steer a vessel into the harbour during a south-westerly gale.

At present the swell, which rebounds from the south pier and jetty across the entrance of the harbour, expends itself amongst the rocks on the north side; but were the north pier finished there would be a check and rebound from it that would so agitate the entrance as to defy any man to steer through it.

In short, however suitable Port Patrick might have been, and no doubt it possessed great advantages when small sailing sloops were employed to convey the mails, it is clearly manifest that after the introduction of steam vessels it should have been abandoned, not only from its incapability of admitting steam vessels of sufficient length and power to ensure a regular and safe passage across those stormy seas, but because there were other ports not far off better situated with regard to mail deliveries, and which might be entered or departed from in perfect security in any weather, and by the largest class of steamers, namely, Loch Ryan and Loch Larne.

Were Loch Ryan and Loch Larne at present adopted, it would only be necessary to erect a jetty at Cairn Ryan, as Mr. Agnew offers the use of his at Larne gratis.

Should a fair trial be given to ascertain the relative merits of the present route *via* Portpatrick and Donaghadee, and the route I have the honour to propose by Loch Ryan and Loch Larne, the mails and passengers could be embarked at Cairn Ryan in any weather, and the pier need not be constructed till the result of the trial would enable a decision to be formed.

DONAGHADEE.

I beg to submit a plan of this harbour which will give a much better idea of it than any description of mine.

A reference to the soundings, marked red, which I took last month, will show the extent the harbour has silted up since I sounded it in 1836.

I found a quantity of large stones extending from just inside the entrance to a "puddle dyke" in the centre of the harbour that had never been removed: those stones had been washed into the harbour from the glacia, during easterly and south-easterly gales, and ought, together with the puddle dyke, to have been removed.

Donaghadee, in its present contracted and shallow state, will not admit of larger steamers than those now employed, and even they find great difficulty in entering it at low water, during easterly gales.

There is no serious objection to Donaghadee as a packet station, it being situated on a weather-shore, during the prevailing winds, and frequented by the packets during daylight only: it might be deepened to ten feet all over; but it is evident, however, that it is too small to be of any service as a harbour of refuge.

It will always require an annual expenditure to keep it up, and has not capacity for admitting that length of vessel which alone could ensure regularity and safety in conveying the mails across those seas.

BELFAST.

I have the honour to submit a plan, showing the improvements that have taken place in this harbour since I reported on it in 1836. All that part coloured "brown" is entirely new, consisting of embankments formed, and a cut made and deepened to nine feet at low water. They are at present excavating and deepening the river from the bridge down to the cut, and widening the quays at the north or town side of the river to meet the rapidly increasing demands of the trade. When these works are finished, vessels drawing nine feet water will be able to get up to the quays of Belfast at low-water springs.

There will be always some difficulty in navigating the tortuous part of the channel, until the second cut is made, (particularly in thick weather or dark nights,) owing to the great length of the steam vessels now generally in use. When the second cut is made down to Garmoyle, the channel will be straight. Gas lamps may be placed at intervals along the embankment, which would enable steam vessels to run up and down at all times, as easily as a carriage goes along the street. As a port of communication with Scotland and the north of England, there is no doubt but a great many passengers would find it very convenient to be landed at Belfast; yet it must be remembered that the sea passage between it and Cairn Ryan is fifteen miles longer than that between the Cairn and Larne, and although those fifteen miles are performed in the comparatively smooth water of Belfast Lough, considerable delays might reasonably be expected from navigating it in thick weather, or dark nights, particularly among the shoals at the upper and narrow part of it: on the other hand, passengers or mails landed at Larne might be sent in two directions. Those for the northern parts of Ireland might go direct by a railroad to Ballymena, or by the new road along the north coast of Antrim to Coleraine, Londonderry, Donegal, and Sligo, while the other portion destined for Belfast, and the whole of the centre and south of Ireland, would find a rapid and economical mode of transmis-

sion by means of a railroad to Belfast. It is therefore reasonable to suppose that a majority of the passengers would prefer the safest and most expeditious sea passage, which is manifestly that between Loch Ryan and Loch Larne, in consequence of there being no limit to the size or power of the steamers which might be placed on that line.

Having complied with your instructions by reporting to the best of my ability on the present state of Loch Larne, Loch Ryan, Port Patrick, Donaghadee and Belfast, I humbly submit for their lordships' information the following trials I made last month, (December, 1845,) to test the relative merits of the route by Port Patrick and Donaghadee with that by Loch Ryan and Loch Larne, as represented in the inclosed sketch of the Irish Channel.

On the 22nd of last month I went, during one of the hardest gales we had this winter from the west-north-west, in the Albion, an iron merchant steamer, from Stranraer to Belfast (49 miles) in five hours and a half.

The Albion is about 200 tons burthen, has 130 horse-power, and draws, when loaded, six feet and a half water. She had a full cargo, and averaged nine miles an hour against the gale. I timed her from passing Cairn Ryan to abreast of Larne, and she ran the distance (30 miles) in three hours and a half.

This, considering the circumstances of wind and weather, is as long a passage as would occur during the year between Cairn Ryan and Larne.

I also went on the 17th of last month in the "Pike" mail boat, Lieut. Boyton, from Donaghadee to Port Patrick. The water was smooth: we had a leading wind, and the sails were set; yet, owing to the limited size and power of the boat, we were two hours and fifty minutes running across (19 miles).

This clearly proves the great superiority of the Larne and Loch Ryan route; for the Albion went against the hardest gale we had this winter two miles an hour faster than the largest boat that could enter Port Patrick could go in fine weather with a fair wind.

The mail boats during adverse gales are obliged to tack, under steam and canvass, across the channel, having neither length nor power to stem the gale.

The "Pike," Lieut. Boyton, was, under such circumstances, nine hours and a half crossing, a few days before I went in her.

It will naturally occur to you, Sir, to ask, Why has not the route *via* Port Patrick been abandoned long ago if there be such objections to it? The reason is easily explained. When the Commissioners of Inquiry into the Post-office department, in 1836, strongly and unanimously recommended in their Report (6th Report of the Commissioners appointed to inquire into the department of the Post-office, 1836) that no further expense should be incurred on Port Patrick or Donaghadee, and that Cairn Ryan and Larne should be adopted as the best route for the mails, the proprietors of Port Patrick, and the civil engineer, stated that, if the money then voted for the completion of Port Patrick (23,700*l.*) was expended on it, the harbour would be rendered perfectly safe, and possess ample accommodation for the reception of first-class steamers drawing 12 feet water and upwards.

Although the Lords of the Treasury had complied with the recom-

mentation of the Commissioners of Inquiry, by stopping the works and paying off the workmen, yet their lordships, considering that nearly 150,000*l.* public money had already been spent on Port Patrick, and that the engineer was quite confident of success, consented to go on with the works.

The present state of Port Patrick sufficiently explains the result.

Under these circumstances, it is my humble opinion that it is well worthy of their lordships' consideration, whether a fair trial of the two routes is not desirable. By granting it, their lordships will settle a question which for many years has been the cause of considerable anxiety to the bankers, merchants, and manufacturers of Scotland and the north of Ireland.

I have the honour to be, Sir,

Your most obedient, humble Servant,

GEO. EVANS, Capt. R. N.

To Capt. W. A. B. HAMILTON, R.N.,
Secretary to the Admiralty, &c.

DESCRIPTIVE NOTICE OF THE MINES AND AMALGAMATION PROCESS OF MEXICO.

(Continued from page 210.)

It will be observed that quicksilver performs a very important part in the process of amalgamation, the silver being through its agency collected from the ore: but this is only done at an enormous loss of its own bulk, occasioned in part mechanically from its minute subdivision through such an immense mass of matter, but principally from the chemical action upon it during the reducing process. The consumption of quicksilver varies in different districts, according to the nature of the ores, the climate, and the practical skill attained by the operator.

In some places and on some ore the loss of quicksilver is as low as ten ounces for every marc of silver produced, while in others it exceeds twenty ounces; the average loss may however be taken to be a pound of quicksilver for every half pound of silver extracted.

Thus then, if we assume the silver produced in Mexico by amalgamation to be 1,400,000 marcs, or 700,000 lbs. avoirdupois, in the course of a year*, the consumption of quicksilver will be double that amount,

* "The total coinage in 1841 amounted to—		
	751,058 dollars in gold, and 12,731,787 dollars in silver.	
Add, estimated value not	1,248,942	3,268,263
sent to the Mints		
Total	2,000,000	16,000,000

These amounts represent 12,867 marcs of gold and 1,777,777 marcs of silver."—St. Clair Duport, de la production des Métaux précieux au Mexique, &c.

Amount of coinage in Mexico in the years 1843 and 1844:—

that is 1,400,000 lbs., or 14,000 quintals; and as the produce of the Spanish quicksilver mines is about 22,000 quintals per annum, it follows that of this quantity Mexico alone consumes two-thirds; which shows how mutually dependent Spain and her old colony still are upon each other in this particular.

The produce of the Mexican mines has always been found to be influenced by the price of quicksilver, because of course where the consumption is so great of an article which must be obtained and paid for before the produce of the mines is available, the capital required is proportionally larger, and the costs of the concern are enhanced, so that a serious check is given to mining enterprise. Hence the Spanish government, when in possession of Mexico, passed laws by which the miners were supplied with quicksilver from Spain at a certain moderate price, this being at one time so low as forty-three dollars per quintal, being a reduction in 1776 from the former price of sixty-two dollars per quintal, at which it had been supplied since the year 1767: and it is on record that as the quicksilver became cheapened to the miner, so the beneficial effects of the government measures were seen in the augmentation of the amount of silver produced, with all the advantages to the state direct and indirect arising therefrom.

Circumstances altered with the loss of Mexico by Spain; but still for several years after the revival of Mexican mining in 1824, when the English companies were established, the price of quicksilver did not exceed 1*s.* 9*d.* per lb. in London, or sixty dollars per quintal in Mexico. A contract was, however, afterwards concluded between the house of Messrs. Rothschild and Sons and the Spanish government, under which a complete monopoly of the quicksilver from the mines of Almaden (the chief source of supply) fell into the hands of the Rothschilds, who have since held it, and have from time to time raised the price until it reached 4*s.* 6*d.* per lb., at which it still continues. The present price in Mexico is 140 dollars per quintal, more than three times that at which the article was once supplied under the Spanish rule, and eighty dollars per quintal more than in 1828: whence it follows that upon the consumption of Mexico, the difference of cost of quicksilver amounts to 1,120,000 dollars per annum, equivalent to an extra tax of about ten per cent. upon the silver produced.

The simplicity of the Mexican process of amalgamation, as applicable to large masses of ore, is evident from the fact, that, although 288 years have elapsed since its first introduction, no plan that has been proposed subsequently has been found advantageous enough to supersede it; and yet it is generally acknowledged to be very imperfect, inasmuch as, besides the enormous consumption of quicksilver in the operation, the quantity of silver extracted from the ore is, upon the average of all

1843.	Gold	620,592 dollars.
	Silver.....	11,621,480
	Total.....	12,242,012
1844.	Gold	726,762
	Silver.....	13,027,879
		13,754,641 dollars.

Mexico, not more than three-fourths of that which it actually contains; and thus there is a waste of twenty-five per cent., or upwards of 450,000 marcs of silver per annum, worth nearly 4,000,000 dollars.

The attention of many scientific men has been directed to the subject, and various plans have been suggested and tried, but have invariably failed, either because they required more skill and care than can be obtained in Mexico, or were not adapted to the peculiar circumstances of the country. In some localities the German barrel process has been introduced with success; such is the case particularly at Oaxaca, Bolaños, Real del Monte and Pachuca, but it is questionable whether it can be applied advantageously in districts where fuel is scarce and dear, and where there is no water power to turn the barrels. Moreover, the first cost of erection is comparatively very heavy, and is a fatal objection to the general application of this process in Mexico. Be this as it may, however, it has been found to answer exceedingly well at the places above mentioned; and at Real del Monte ores which in the patio process lose twenty to forty per cent. of the silver, are reduced in the barrels with an average loss of only ten or fifteen per cent.—the consumption of quicksilver being at the same time diminished to about two or three ounces per marc of silver obtained.

A patent has lately been obtained in Mexico for certain improvements in the barrel process, it being proposed to use the perchloride of iron, or any other substance containing chlorine, in lieu of salt. It is also proposed to save the liquid from the barrels which contains chloride of iron, and to use this over again in the reduction of other ore, and thus economize the salt or perchloride of iron or other substance from which the requisite chlorine for the conversion of the silver into a chloride is to be obtained.

Mr. J. C. Bowring, who has had many years' experience in the reduction of the ores of silver, both in Peru and Mexico, and has devoted much time and attention to an examination of the subject, disputes the theory of the amalgamation process hitherto received, and proposes certain modifications in the latter which he is now endeavouring to carry into effect in Mexico—the principal of these is the use of an oxychloride of copper instead of the magistral at present employed^a.

^a Before Mr. Bowring left England, in 1845, he kindly furnished me with the following paper, expressly for this article. A more detailed paper by Mr. Bowring on the same subject had been previously read at the Annual Meeting of the British Association for the Advancement of Science:—

"The theory of the chemical decompositions which take place in the Mexican amalgamation process has hitherto been supposed to be, that the bichloride of copper which is formed by the contact of magistral and common salt, abandons its chlorine to the silver, the sulphur of which combines with the copper, and the chloride of silver is decomposed by the mercury with which the precious metal becomes amalgamated. The following considerations, however, will disprove this theory:—

"1. Ores containing silver combined only with chlorine, are considered by Mexican miners as those most difficult of reduction, and the loss of mercury caused by them is at least treble that experienced in those which contain only sulphurets, and the process is much more tedious. To practical men also the appearance of the amalgams proceeding from these different combinations of silver, when assays are taken out of the tortas, are a convincing proof that the theories of their reduction cannot possibly be similar, for in the chloride the quicksilver is instantly attacked, and its globules are very difficult to be united by friction, on account of their being covered with a thin coating of protochloride (calomel), whereas, when operating upon sulphurets, the mercury is always bright, (except at the very beginning of the pro-

Of the methods which have been suggested at various times for extracting the silver from the ores of Mexico without the agency of quick-silver, none seem to promise so well as a process recently discovered in

cess,) and does not separate into globules, unless, indeed, too large a quantity of magistral has been used, when the appearance becomes similar, though in a slighter degree, to that when chloride of silver has been reduced.

"Various plans have been imagined to diminish or even entirely to do away with the loss of mercury, on the hypothesis that chloride of silver is formed, and in ores containing this native combination, as those of the district of Catorce, great advantages are derived by boiling them in copper vessels, as by the contact of this metal the chloride is decomposed before the mercury is added, thus rendering the loss of this scarcely appreciable. Upon this class of ores many of the plans proposed by European chemists have been successfully tried, but all have invariably failed when sulphurets of silver have been attempted to be reduced by them.

"2. Although the experiments of M. Boussingault prove that a *strong* solution of the bichloride of copper mixed with one of salt, placed in contact with sulphuret of silver, form, after some lapses of time, chloride of silver and sulphuret of copper, still in practice this cannot be the case, for in many instances a solution of less than *one ounce* of sulphate of copper is required in *seventy pounds* of water, and even in the ores most difficult of reduction the quantity is rarely more than *eight ounces*. Numberless experiments have been made in Mexico to bring this principle into practice, but after leaving the ore for two months exposed to the action of a solution of bichloride of copper in one of salt, a trace even of chloride of silver is rarely to be found; and then, on adding the mercury, the process lasts as long as in ordinary cases, when it is put in before the sulphate of copper: from the constant failure of these trials it is evident that the theory on which they are founded must be fallacious.

"The presence of mercury being thus necessary, not merely as the means of collecting the particles of silver disseminated through the ore, but also as a chemical agent, the action of bichloride of copper upon it must be considered. By this action, which takes place instantaneously, a protochloride of both metals is formed, and that of the copper by absorbing oxygen from the atmosphere becomes converted into an oxychloride, which by giving up its oxygen to the sulphur combined with the silver, leaves this in a metallic state, and free to amalgamate with the mercury. This is proved by boiling native sulphuret of silver with oxychloride of copper in a solution of common salt, when metallic silver will be obtained; or as a more practical experiment, by mixing some rich ore with these materials and mercury at the ordinary temperature; in about an hour the whole of the silver will have become amalgamated, when on separating all the soluble salts by filtration, on the addition of chloride of barium, sulphate of barytes will be precipitated, equivalent in quantity to that of the sulphur which has been acidified; it will thus be made evident that the sulphuric acid can only have been formed by the decomposition of the sulphuret of silver, and could not have existed if this metal had become combined with chlorine according to the old theory of the process.

"The action of oxychloride of copper in the reduction of silver ores seems to be continuous, and its theory thus offers some analogy to that of the manufacture of sulphuric acid; by giving up its oxygen to the sulphur previously combined with the silver the oxychloride of copper is converted into a protochloride, and this into a bichloride by the action of the chlorine which is evolved by the decomposition of the salt when attacked by the sulphuric acid that has been formed. This bichloride is again decomposed by the mercury, and first a proto and then an oxychloride of copper are formed; the sulphur of the silver becomes acidified, and the action is continued in the same manner until the whole of the metal is amalgamated.

"The imperfections in the Mexican amalgamation process arise chiefly from the small quantity of oxychloride of copper that can be employed; for by using too large a proportion of the sulphate the mercury becomes sensibly attacked, and when its surface is not perfectly clean it will not take up the particles of silver. The use of salt in the *tortas* has always been supposed to be to dissolve the chloride of silver formed during the process, but its real object is to assist, first, in the formation of the oxychloride of copper, and to dissolve it afterwards, thus rendering it more fit to act upon the sulphuret of silver."

Germany by Mr. Ziervogel, who has established it at Hettstadt for the separation of silver from copper ores and copper regulus. This method having come under the notice of Mr. A. E. Spangenberg, he conceived the idea of applying it to the silver ores of Mexico, with what success will be ascertained in the course of a few months, Mr. S. having gone to Mexico with the object of introducing the process there. By Mr. Ziervogel's discovery we are in fact offered the choice of two processes, which I now proceed to describe as briefly as possible, so as to make them sufficiently well understood without entering into more detail than is consistent with a descriptive notice of this kind.

The first discovery is that chloride of silver is more readily soluble in a hot saturated solution of salt than in a cold solution. The preliminary part of this process consists as in the barrel process of calcining the ore with salt, (4 or 5 per cent. is considered sufficient,) by which means the silver is converted from a sulphuret into a chloride. Thus prepared the ore is at once removed from the furnace into a suitable vessel or tub, and a hot saturated solution of salt is poured upon it, and coming in contact with the chloride of silver takes it up and holds it also in solution. This solution is drawn off into other tubs containing metallic copper, by means of which the silver is immediately precipitated, and remains at the bottom of the tub, while the liquid still holding salt and chlorine in solution is brought back by a simple contrivance to its original starting point, and may be used over and over again without any serious diminution of the quantity of salt.

The second discovery is that sulphate of silver is soluble in hot water alone. The sulphuret of silver is by careful roastings in a reverberatory furnace converted into a sulphate, which is ascertained by proper tests.

From the furnace the ore is thrown into a suitable tub and hot water immediately poured upon it. The liquid now holding the sulphate of silver in solution is drawn off into other tubs, and silver precipitated as in the first-mentioned process. This second process is best adapted for ores which contain a large proportion of iron and copper pyrites, because a certain quantity of sulphur must be present to insure the conversion of the silver into a sulphate.

Next to quicksilver the most costly article used in the amalgamation process is salt, which is procured partly from the sea-coast, but mostly from the interior of the country, being collected from beds of lakes, which afford a very large supply, but the price at the mines is enhanced by the expensive carriage. Hence at the mines of Guanaxuato and Real del Monte they pay at the rate of a dollar per arroba, or nearly twopence per lb. for the coarse salt used in the process of amalgamation, being four times the retail price of fine salt in London. The Sal Tierra of Zacatecas, calculating upon the quantity of salt it contains, is but little more than half the above price.

There can scarcely be said to be any general rule for apportioning the salt to the ore in the Mexican process; it is dependent upon the experience or the caprice of the Azoguero, and likewise upon the nature and composition of the ore, which is often exceedingly complex and difficult of reduction*.

* The following is an analysis by Mr. J. E. D. Rodgers, of an ore from the Santa Brigida vein at Real del Monte:—

If, however, we take the average consumption of salt to be 3 lbs. to every quintal of ore reduced, the whole quantity of salt used in the amalgamation process in Mexico amounts to 6,000 tons per annum, which, at 80 dollars per ton, costs to the mines 480,000 dollars.

The magistral, or sulphuret of copper and iron calcined, is obtained in its crude state also from the interior of the country, the principal supply being derived from the copper mines of Tepesalá, twenty leagues south-east of Zacatecas, and Mazapil, sixty-five leagues north of Zacatecas. Its cost at Zacatecas is about £8 per ton, and at Real del Monte nearly £20 per ton, owing to the greater distance from the source of supply. Still in the aggregate it is less expensive in the process of amalgamation than the salt.

With the exception of a small quantity of lime, quicksilver, salt and magistral are the only ingredients used in the amalgamation process; and with these and the simple apparatus employed in Mexico about seven-eighths of the silver produced is extracted from the ore, the enormous quantities of which may be inferred from the fact that the average produce does not probably exceed 3 oz. of silver from every 100 lbs. weight of ore.

From the data herein given it is easy to calculate that the quantity reduced every year to an almost impalpable powder cannot be less than 200,000 tons.

The effect of operations so extensive may be readily conceived. Vast numbers of persons are employed, and many towns and villages are dependent upon the mines for their very existence.

With the prosperity of the mines agriculture thrives and trade and commerce derive great encouragement.

In conclusion, I would remark with respect to the loss sustained by English Companies in the prosecution of mining undertakings in Mexico, that much of it has arisen from the circumstance of their not having given due credit to the Mexicans for skill in the application of the means they possessed.

The excellent code of mining laws established by the Spanish government, and an examination of the mines and reduction works, serve to show that the Spaniards and the Mexicans, rude as some of their operations appear to us, had good practical knowledge of the subject, and knew very well how to work the mines so as to extract their riches. Experience has proved, nevertheless, that when selected with judgment and under careful management the mines of Mexico may be made to answer the purpose of the capitalist; and the well-known instance of

Silica	68.
Alumina	8.
Peroxide and sulphuret of iron	7.5
Magnesia	1.6
Sulphuret of lead	2.82
Peroxide of manganese	5.3
Sulphuret of zinc	2.3
Lime	1.45
Sulphuret of copper . . . . .	.40
Silver . . . . .	.25
Potass, antimony, tellurium, traces of soda, gold, and loss	2.38
	<hr/> 100.

the Veta Grande mines in Zacatecas, which gave a clear profit in eleven years, from 1828 to 1838 both inclusive, of 1,450,000*l.* sterling, and several other recent cases that might be adduced, prove that the Mexican mines are still capable of yielding very large and profitable returns.

There is, indeed, reason to believe—now that attention is directed to new or comparatively untried veins, of which there are plenty in Mexico, instead of expending large sums upon the old and deep mines, that other rich deposits of ore may be discovered; and it may be well for those who have embarked their capital in the mines of Mexico, not to give way altogether to disappointment, but to consider whether by adopting a system which experience has proved to be the correct one, far better results may not accrue, and in the end prove that the disrepute into which Mexican mining has fallen, has arisen almost solely from the erroneous principle upon which the English companies were conducted at the outset as regards the selection of their mines.

LAW PROCEEDINGS.

COURT OF EXCHEQUER.—FEB. 27.

(*Sittings at Nisi Prius in London, before the LORD CHIEF BARON and Common Juries.*)

WALSTAB v. SPOTTISWOODE.

THIS was an action of assumpsit against Mr. Andrew Spottiswoode, as one of the provisional committee of the Direct Birmingham, Oxford, Reading and Brighton Railway Company, to recover back the sum of 78*l.* 15*s.*, the amount of deposits paid by the plaintiff on thirty shares in the above undertaking, which had been allotted to her, and for which she could not afterwards obtain scrip from the committee.

The defendant and certain other persons agreed to form the above company with a capital of 2,000,000*l.*, in 80,000 shares of 25*l.* each. The plaintiff was a widow, who, seeing the advertisement in the *Pictorial Times*, applied for shares, obtained a letter of allotment, and paid the deposit. Her son applied for the scrip several times, but the answer was that it was not ready, and he was referred to Messrs. Blunt and Spottiswoode, as managers. He saw Mr. Blunt, who said the directors had taken counsel's opinion, and had come to the resolution of not issuing any scrip. Mr. Blunt said that to repay the money would be impossible, as the greater part of it had been expended. He said, "Not all the members of the managing committee had paid their deposits, but they would do so."

The Lord Chief Baron observed, that he saw no reason for not believing that this company was honestly commenced, or for imputing to the present defendant, or to the persons who were associated with him, any fraudulent motives in connexion with it. The statement of the counsel for the defendant seemed to him to make an end of the case. That statement was, that 400,000 shares had been applied for, that the committee had allotted 70,000, and that of these 70,000 the deposits had been paid on 4,000 only. It struck him that this case fell entirely within the case of *Nockels v. Crossby*, and others, 3 *Barnewall and Cress*, 814, in which it was held, that where a scheme for establishing a tontine was put forth, stating that the money subscribed was to be laid out at interest, and where, after subscrip-

tions had been paid to the directors in whom the management of the concern was vested, and before any part of the money was laid out at interest, the directors resolved to abandon the project, each subscriber might, in an action for money had and received, recover the whole of the money advanced by him, without the deduction of any part towards the payment of the expenses incurred. In this case he fully concurred.

The Jury instantly returned a verdict for the plaintiff on the first and second counts.—Damages 78*l.* 1*s.*

The defendant had liberty to move to enter a nonsuit.

CIVIL SIDE.—MAIDSTONE, MARCH 11.

(*Before Lord Chief Justice DENMAN.*)

M'DOWALL v. DUNNINGTON AND OTHERS.

This was an action brought to recover the amount of a bill for printing books of reference, circulars, and other matters in connexion with a projected railway called the London, Nottingham, and Sheffield Direct Railway.—Serjeant Shee and Mr. Lush were for the plaintiff; Mr. Prentice appeared for the defendants.

The plaintiff is a printer in Fleet Street, and he had been engaged to perform the work specified in the declaration. The defendant and the other parties mentioned in the record had taken proceedings in connexion with the railway in question, and they were now sued as the parties who were responsible for the payment of the plaintiff's claim.

The jury having consulted for a short time,—The Lord Chief Justice told them that there was no defence to the present action. The defendants had suffered their names to be put forth to the public as part of the managing committee of the scheme in question, and they were legally responsible to the plaintiff.

A verdict was returned for the plaintiff for the sum of 167*l.* 17*s.* 6*d.*

FINLAYSON v. PILBROW.

The plaintiff is an engineer, and he sued the defendant, the well-known atmospheric railway projector, for a balance due to him for services rendered in making surveys for the Gravesend and London Direct Atmospheric Railway, for which the defendant was the engineer.—Serjeant Shee and Mr. Willes were for the plaintiff; Mr. M. Chambers and Mr. Lush for the defendant.

David Finlayson, the brother of the plaintiff, deposed that in the beginning of October last, he was in the Hall of Commerce, in London, where he saw a person named Beaumont, who required the services of the plaintiff to survey the line and make the levels for the proposed London and Gravesend Railway. An appointment was afterwards made to meet at the office of the company in King William Street, and they there saw the defendant, who said that any arrangement made with Mr. Beaumont was just the same as if made with himself, and it was then agreed that the plaintiff was to have three guineas a day, but it was stated that he could not have any money on account, because the deposits had not come in. In consequence of this agreement the plaintiff proceeded to make the necessary surveys, and was occupied in so doing until the 16th November.

Cross-examined.—He was not aware that Mr. Pilbrow had disposed of his atmospheric railway patent to a company who were to work it on their own behalf. There might have been something of the sort, but he was not aware of the fact, and he always considered Mr. Pilbrow the responsible man. He took away one or two of the prospectuses, in order that he might see whether they contained the names of any responsible persons from whom he might recover the money due to him "one of these odd days." The company was indebted to him 32*l.* or 33*l.* for services he had rendered. Witness was employed by Mr. Beaumont, who was the engineer, to take bearings upon the line.

Mr. Arthur Benjamin Burke gave similar evidence as to the character of the agreement.

Cross-examined.—Before witness was a wine-merchant he used to go on messages for the plaintiff, and assist him in his business. Sometimes he gave him half a sovereign, and sometimes a sovereign, according to the manner in which he employed him.

This was the plaintiff's case.

Mr. Chambers said the defence he had to offer to this action was, that the defendant was not liable to the plaintiff, and he never entered into any such agreement as the one referred to. The fact was, he was the proprietor of a new principle of railway traction upon the atmospheric principle, and he disposed of his invention to the company in question, and the only connexion he had with them was that he was occasionally consulted with regard to the details of his invention. The actual engineer was Mr. Beaumont, and he it was who made the arrangement with the plaintiff, and was liable to him, if anybody was.

Mr. Beaumont was called as a witness. He deposed that he was appointed "engineer in chief" to the Gravesend and London Direct Railway. About the beginning of October they were desirous of preparing to go before Parliament. He went to the Hall of Commerce and saw the plaintiff walking about with a level on his shoulder (a laugh).

Mr. Chambers.—I suppose that was to indicate that he wanted a job (renewed laughter).

Witness.—He supposed it was. As there was a great demand for persons of that class, he entered into communication with him, and eventually offered him three guineas a day; but as witness at that time had not himself made any positive engagement with the company, he was desirous of communicating with Mr. Pilbrow before he completed the engagement; but when he did so it was entirely upon his own responsibility. He had paid the plaintiff 7*l.* 10*s.*, and he considered this was a great deal more than he was entitled to. All he had for this sum was the small plan which he now produced; and there was an error of fifty feet in the levels, which, if they had gone to parliament, would have had the certain effect of throwing out their bill.

In cross-examination the witness admitted that the defendant was frequently consulted in the course of the proceedings, and that he was considered a responsible party.

Serjeant Shee was about to reply upon this evidence, when the Lord Chief Justice intimated that nothing had been proved to affect the plaintiff's claim.

The Jury accordingly returned a verdict for the plaintiff, for the full amount claimed, 117*l.*, less the sum he had received on behalf of the company from Mr. Beaumont.

VICE-CHANCELLOR'S COURT.—MARCH 11.

(*Before Sir J. L. KNIGHT BRUCE.*)

LORD WARD *v.* THE OXFORD, WORCESTER, AND WOLVERHAMPTON RAILWAY COMPANY.

Mr. Wigram (with whom was Mr. R. Palmer) moved for an injunction restraining the Oxford, Worcester, and Wolverhampton Railway Company, their workmen, servants, or agents, from entering upon, using, or interfering with the plaintiff's lands in the parish of Dudley, without his lordship's consent, for any purpose not expressly authorised by the Company's Act, until the purchase-money or compensation to be given for the lands required for the purposes of the railway should be paid or secured; that they might, in like manner, be restrained from building or erecting upon the lands of the plaintiff certain turrets or observatories now in the course of erection, or any other works of a like nature; and from casting up, throwing, laying, or

depositing, or continuing to cast up, throw, lay or deposit any spoil; or from sinking, digging, or excavating any shafts or pits. It was stated, in support of the application, that Lord Ward was the owner of estates at Dudley, through which the railway was intended to pass, being carried below the level of the ground a considerable number of yards, and passing through a tunnel 900 feet in length. The Act which had been obtained by the company, empowered them to enter lands for the purpose of examining the nature of the strata, and to lay out the line proposed. The agents of the company had entered the land of the noble plaintiff, for this purpose, on the 21st of February last, and had dug holes in the ground, of a considerable depth, and of about four feet in width. No objection had been made to this, but, subsequently, on the 3rd of March, the agents of the company, as it was alleged, had again entered and commenced making holes, sixteen feet square, apparently for the formation of a permanent tunnel. The noble plaintiff complained that this had been done without any notice, or any offer of compensation. The company had authority to make the borings, for the purpose of examining the strata.

The Vice-Chancellor.—How does it appear that the authority given by the Act is exhausted?

Mr. Wigram stated that the works authorized by the Act were merely of a preliminary or temporary nature, whereas those attempted and now complained of were permanent. The defendants had been served with notice to desist. The solicitor of the company had answered, that they had no intention of entering on the land without Lord Ward's assent; that the company wished to obtain his lordship's permission to occupy the land permanently, and intimating, that until this was obtained the workmen would confine themselves to preliminary proceedings. The acts complained of had taken place on the 3rd of March. The affidavits in support of the motion stated, that according to the opinions of persons of experience, the present works could not be wanted for any preliminary purpose.

His Honour inquired whether any form of injunction had gone so far as to restrain parties from "entering upon" the land. He should have thought "using or interfering with," sufficient. In reference to that part of the injunction which prayed that the company might be restrained from "casting up, throwing, laying, or depositing spoil," and "continuing" to do this, his Honour observed to the counsel for the motion, "You have a net large enough to catch the whole company." He would grant the injunction until further order, an undertaking being given to abide by any order which the Court might make as to damages.

This being the third seal after Hilary Term, the Court disposed of several other motions, most of which were of a technical nature.

(*Before Sir J. WIGRAM.*)

PARSONS v. MUNTZ AND OTHERS.—SOUTHAMPTON AND OXFORD JUNCTION RAILWAY COMPANY.

Mr. K. Parker and Mr. Hetherington moved that the defendants, Muntz, Spooner, and others, who are the directors of the Southampton, Manchester, and Oxford Junction Railway Company, might be restrained by the injunction of the Court from parting with, depositing, assigning, transferring, or disposing of the monies or securities belonging to the company, and now in the hands or power of the defendants, or any part or portion of the same, to any other company, or to any other person or persons. The motion was made on behalf of Mr. Parsons, the former solicitor of the company, who had been, as was alleged, chiefly instrumental in the formation of the company, and who claimed about 900*l.* from them, in respect of his bill of costs. This gentleman's claim was fully discussed a short time since, when the case came before the Court, upon demurrer. The demurrer was over-ruled. The bill was filed for the purpose of having it declared that the plaintiff, as solicitor, was intitled to have his bill paid out of the deposits.

Mr. Romilly and Mr. Bazalgette, on the part of the directors, expressed their willingness to have some arrangement made under the sanction of the Court, which would answer the object of the plaintiff in this motion. The directors had no other wish than that Mr. Parson's costs should be paid, but part of the charges had been satisfied by his consent to take a number of shares, and it was alleged by the directors that the deposits upon those shares had not been paid up. It appeared that all the parties had not answered to the bill, and as to some, there was a difficulty in obtaining any answer.

His Honour suggested that the company should pay a sum of money into Court without prejudice, and that upon the answers coming in, as a reference seemed to be inevitable, the motion might be renewed if necessary.

The counsel for the defendants stated that the company was willing to pay into court 1,000*l.*, according to his honour's suggestion. It was quite clear that a reference must take place as to the bill of costs; the terms of the reference would be a matter of some importance.

Upon this understanding the motion was directed to stand over.

Mr. Hetherington afterwards applied to the Court, in the same cause, for leave to substitute service of the subpoena to appear and answer, as to one of the directors of the company, a Mr. Oliveira, one of the defendants, upon the private solicitor of this individual, or upon the solicitors of the company. The affidavit stated that application had been made in December last at Mr. Oliveira's private residence, when it was stated that he was in France. The affidavit proceeded to state circumstances from which it was sought to infer that Mr. Oliveira had consented that the solicitors of the company should accept service. The learned counsel said he had applied for leave to substitute service in order to avoid the form of advertising the names of the absentees, as was authorized by the 31st of the Chancery orders of May last.

His Honour said he would consider whether service could properly be substituted by being made upon the registered solicitors of the company. He refused to allow the service upon Mr. Oliveira's solicitor. As the affidavit stated that he was in Paris, the plaintiff might have leave to serve him there if he pleased.

A similar application was made as to a director of the name of Jennings, of Elm Grove, Hammersmith, at whose house inquiry had been made in December last, when the applicant was told that Mr. Jennings was on the Continent, and it was uncertain when he would return. On the 3rd of February it was stated that he had been seen walking in the Strand, when another application was made, but without success.

His Honour thought the service would have been good at the defendant's residence, it appearing that his wife and servant had remained at his house, although he himself was absent. He, therefore, refused to give leave to substitute service in this case.

A third application was made by the learned counsel in the case of another director of the name of Mr. Robert Henry Fowler, of Manchester Square, at whose house inquiry had been made for the purpose of effecting service of subpoena, when it was stated that he was at Ostend. The servant informed the messenger that he had sent him a document for signature at Ostend, but had not yet received it back.

His Honour thought the affidavit was defective, as it did not state the deponent's belief that Mr. Fowler was at Ostend: and the evidence as to his being there was not such as the Court could safely act upon, no answer having been received from thence by the servant, who stated that he had merely sent a document for signature. As to the question whether service should be allowed upon the solicitors to the company, he would consider of it. There seemed to be a great deal of good sense in it, if it could be ordered consistently with the rules of practice.

The 31st order of May, 1845, provides that "in case it appears to the Court by sufficient evidence that any defendant, against whom a subpoena to appear, or to appear to and answer a bill, has been issued, has been

within the jurisdiction of the Court at some time, not more than two years before the subpoena was issued, and that such defendant is beyond the seas, or that, upon inquiry at his usual place of abode (if he had any), or at any other place or places where, at the time when the subpoena was issued, he might probably have been met with, he could not be found so as to be served with process; and that, in either case, there is just ground to believe that such defendant is gone out of the realm or otherwise absconded to avoid being served with process; then and in such case the Court may order that such defendant do appear at a certain day to be named in the order; and a copy of such order, together with a notice thereof to the effect set forth at the foot of this order, *may within fourteen days* after such order made be inserted in the *London Gazette*, and be otherwise published as the Court directs; and in case the defendant does not appear within the time limited by such order, or within such further time as the Court appoints, then on proof made of such publication as aforesaid of the aforesaid order, the Court may order an appearance to be entered for the defendant on the application of the plaintiff.

EXETER.—FRIDAY, MARCH 20.

NISI PRIUS COURT.—(Before Mr. Baron ROLFE.)

WOOLMER AND OTHERS v. TOBY, JUN.

Mr. Crowder and Mr. Greenwood were counsel for the plaintiffs, and Mr. Serjeant Kinglake and Mr. M. Smith for the defendant.

The declaration stated that the plaintiffs agreed to form a company called "The Direct Exeter, Plymouth, and Devonport Railway Company,"—that the company was to be formed by shares,—that the plaintiffs were the committee of management,—that the defendant applied for fifty shares, and that forty shares were allotted to him,—and that the terms were to pay 2*l.* 12*s.* 6*d.* for each, to be paid on or before Saturday, the 20th of December.

To this declaration the defendant pleaded,—that he did not make the contract,—that the plaintiffs never did agree to form a company,—that they were not the committee of management,—that the defendant did not apply for shares,—that the plaintiffs were not willing to form a company,—and that the defendant was induced to enter into the contract by the fraud of the plaintiffs.

Mr. Crowder, in opening the case for the plaintiffs, said this would be a very simple matter. It was an action brought by the plaintiffs to recover damages at their hands for the breach of an agreement into which the defendant had entered, and the amount of that damage was 105*l.* They were aware that where a bargain was entered into between two parties that bargain must be kept, and the law would compel the party to pay such damages as should arise by reason of his non-fulfilment of his contract. Among other schemes brought forward in the autumn of last year, a company called "The Direct Exeter and Plymouth and Devonport Railway Company" was projected, and a great number of persons became anxious to be connected with it, and among others, the defendant, who was an attorney, was an applicant to belong to the company. He applied for fifty shares, and the committee of management allotted him forty shares. The company having been established was registered, and on the 7th of October twelve gentlemen were elected as the committee of management, and seven of those gentlemen were the plaintiffs. There were 720 applicants for shares. The capital was to be 1,000,000*l.* in 40,000 shares. The defendant sent a letter requesting to have fifty shares of 25*l.* each, and undertaking to pay 2*l.* 12*s.* 6*d.* per share for all such shares as should be allotted to him. It was necessary there should be a survey, and engineers were appointed on the 14th of October, lawyers were fixed upon, advertisements were published, and it was a real, honest, and *bond fide* company. On the 15th of December an allotment

of shares was made, and forty shares were allotted to the defendant, and the deposit was to be paid on or before the 20th of December. Very few persons, however, had paid any deposit. He was informed that there was a club established to defend this action, and the parties were determined by every possible means to defeat the claims of the plaintiffs by every legal technicality and quibble. He felt confident, however, that in the result they would find a verdict for the plaintiffs.

Evidence was adduced, from which it appeared that on the 7th of October the committee of management was appointed. On the 15th of October engineers were appointed and directed to survey the line, and to have everything ready by the 30th of November. The defendant applied by the usual printed circular for fifty shares. There were 45,017 shares applied for by 721 persons. On the 15th of December the allotment took place, and forty shares were allotted to the defendant. The company became indebted in a sum of 8,656*l.* 16*s.* Bankers were appointed, and a guarantee was given by some of the members of the committee to the amount of 2,000*l.* In all 36,460 shares were allotted. Nothing was paid on the original allotment. On the 30th of December a circular was sent, requesting the payment of 3*s.* per share, and giving notice that the company could not proceed during the present session. 170*l.* had been paid in. The first meeting took place on the 4th of October; but prior to that time there had been a prospectus published, with the names of directors. The committee of management, on the 31st of December, came to a resolution that each member of the committee of management should pay 3*s.* a share on 200 shares, and that each member of the provisional committee should pay 3*s.* a share on 100 shares. No allotment of shares was ever made to either of the committeemen. On the 7th of November there was a resolution that any member might withdraw from the provisional committee, and some did withdraw. No scrip had ever been issued, or even prepared, and no Parliamentary contract had ever been prepared.

Mr. Serjeant Kinglake then submitted that there was no case. The first objection was, that this managing committee was merely a portion of the company, and no agreement was entered into between the defendant and the committee. It was essential the plaintiffs should prove a contract between the defendant and the particular parties who formed the original committee. He submitted, that inasmuch as the contract was to be made out first by an application for shares by letter, and afterwards by an allotment of shares, if there had been any change of parties between the time of the application and the time of the allotment, there was no binding contract. It was quite clear there had been a change. The date of the application was the 13th of October; the allotment was on the 15th of December. There was no contract with the parties to whom the original application was made. Assuming the committee of management to be the right parties, the application of the defendant was, that he was willing to take shares in a company where certain persons were provisional directors; if, before the allotment of shares, there was an alteration by withdrawal or addition of any parties, it was a different scheme. Then it was a scheme in which there was to be a capital of 1,000,000*l.* in 40,000 shares. The offer of the defendant was, to accept a number of shares in which there was to be 40,000 shares. The 40,000 shares must be allotted before the plaintiffs could claim a deposit. The bargain was not complete. Supposing Mr. Toby had paid his deposit, it had been held that, if a company did not allot the whole of the shares, he was entitled to recover his deposit—the defendant had not that which he had bargained for. Then the declaration stated that the breach was, that he did not pay on the 20th of December, and that it was agreed that he should pay on that day; but by reference to the letter of allotment that was not the case—there was a clear variance—the terms in the letter had not been acceded to. The proposal was, that he should pay the deposit when required; the plaintiffs ought to have set out

that he agreed to pay the deposit when required, and that they had required him, and that he had refused to do so. Then the proposal was, that they should allot him certain shares. Now, they never had allotted him any shares, for there were no shares in existence. A share in a company never had any existence till the passing of the bill, and then, and not until then, could there be a transfer of a share—a man might have scrip, but no share. Another objection was, that a railway company which abandoned their scheme could not recover their deposits—they had never taken any steps to go to Parliament—it was an abandoned scheme—they had said they were the projectors of a scheme which was to go before Parliament, but they had not done so. There was another objection which might be a question for the jury,—the offer was made on the 13th of October, and the acceptance on the part of the company must be within a reasonable time, which he submitted this was not. The only damage, he urged, was 3s. a share.

Mr. Baron Rolfe said, he would reserve liberty for the defendant to move to enter a nonsuit on those different objections. The question as to reasonable time was for the jury.

Mr. Serjeant Kinglake then addressed the jury for the defendant. We were living in times of great speculation. Various had been the railway schemes by which proposals were made to the public, upon the faith of which the public had been induced to advance their money. It was a matter of fact, painful to many parties, that companies had been formed which ought not to have been formed at all. Many bubbles had been created; whether this was one or not it was not for him to determine; but it was clear that protection must be given not only to the companies, but must be thrown around those subscribers who happened, under the representation of the promoters of schemes, in a moment of inadvertence, to have become shareholders. He complained of his friend having told them that Mr. Toby and various other persons had established a club to defend this action. He (the learned serjeant) was ignorant of the existence of any such club. It was clear that no member of the committee had been honest enough to pay up any deposit himself. The question he should submit to them was whether there had been any contract between these parties? They would recollect that on the 13th of October the defendant had made an application to the company for 50 shares, but he thought they would agree with him, that when he made that application he did not intend that week after week should pass without any notice being taken of his application. It was the duty of the plaintiffs within a reasonable time to have notified to him that the railway shares would or would not be allotted to him, but they suffered nine weeks to elapse. They had allowed the month of November to pass over, when circumstances arose which altered the situation of railways altogether, and it was not till the 15th of December that they wrote to him informing him that 40 shares were allotted to him. These allotments were made for the mere purpose of procuring a deposit, to pay the expenses to which they had rendered themselves liable. Mr. Toby ought not to have been compelled to wait until these parties should see whether it was expedient or not to grant shares. Mr. Toby made the application on the 13th of October; he had no power to enforce his proposal. Let them suppose that between the 13th of October and the 15th of December the value of those shares had risen in the market; if they had so risen the committee of management would have kept the shares themselves, and would not have allotted any to Mr. Toby. Was it to be left to the company to allot the shares just when they liked? He contended that they were bound to allot the shares within a reasonable time. Was it not manifest that the allotment of shares was made merely for the purpose of throwing a liability on the shareholders? It was clear, if the shares had been at a high premium, Mr. Toby would never have had any allotment at all.

Mr. Crowder, in reply, urged that this was not a bubble scheme, but a *bona fide* project.

Mr. Baron Rolf, in summing up, said that the learned counsel for the defendant had suggested a great number of grounds on which he contended that the defendant was not liable. He was far from saying they were not worthy of attention, but there was one question of fact that was to be decided by them,—whether the allotment in nine weeks from the time of the defendant's offer was or was not a reasonable time? It was true nine weeks was a large portion of the existence of the company, but they must look at it as if the company had gone on; for his own part, he thought it was a perfectly reasonable time.

The jury returned a verdict for the plaintiffs.—Damages, 105*l*.

PARLIAMENTARY PROCEEDINGS.

LORDS.

FEB. 24.—THE GAUGES.—Lord Kinnaird earnestly hoped that their lordships would grant a committee to inquire whether some control could not be exercised over the existing railways, so as to insure greater safety to her Majesty's subjects travelling by them. A person who had met with a railway accident had told him, that, in his opinion, neither House would take up the subject until a peer or member of parliament was killed. He trusted the prediction would not be verified. The noble lord confessed his surprise at the tenor of the report of the Gauge Commission, which at its commencement was all in favour of the broad, but at its close recommended the adoption of the narrow gauge on all railways. He wished to know when the evidence on which the report was founded would be laid on the table, and what the government intended to do. The Earl of Dalhousie reminded the noble lord that the appointment of the Gauge Commission arose out of a discussion elsewhere; but her Majesty's Government would not recommend the adoption of any further step, until the two Houses had had an opportunity of consulting and studying the report. The evidence on which it was founded, when ready, would be forthwith laid on the table of the House.—Lord Brougham thought the government justified in proposing the full consideration of a question, the decision of which might affect future generations.—Lord Hatherton was of opinion that the report was founded upon the evidence principally of persons interested in the narrow gauge. The subject of the competing lines well deserved consideration, for, taking the London and Birmingham as an example, existing public grievances could only be remedied by competition.—The Marquis of Londonderry paid a compliment to the talent, energy, and industry of Mr. Hudson, in carrying out amalgamation, but condemned the principle as injurious to the public interests.—Earl Grey would correct his noble friend (Lord Hatherton) as to the motion for the Gauge Commission arising exclusively from members friendly to the narrow gauge. He himself had supported the motion, though he had been in favour of the broad gauge. He thought highly of the report, and hoped that a decision would be come to as soon as possible.—Lord Hatherton explained that he had not stated that the commission had been appointed by parties interested in either gauge, but from the decision of the other House, in a particular case, in favour of the broad gauge.

MARCH 3.—PROCEEDINGS OF SELECT COMMITTEES.—Earl Grey withdrew

the motions:—"1. That to every question asked of a witness under examination before a Select Committee there be prefixed, in the minutes of the evidence, the name of the lord at whose suggestion such question is asked. 2. That the names of the lords present each day on the sitting of any select committee be reported to the house on the report of such committee. 3. That in the event of any division taking place in any Select Committee, the question proposed, the name of the proposer, and the respective votes of all the lords present, be entered on the minutes of the proceedings of the committee, and reported to the house on the report of such committee." He had been under the impression that assimilating the practice in regard to select committees to that of the House of Commons would be attended with beneficial results; but he had since learned that those motions would be opposed, as they were contrary to the practice of their lordships' house. He had done so at the suggestion of the Duke of Wellington, who explained that he had thought that the motions would have been strictly in accordance with parliamentary practice, but on reference he found he was not correct.

SUSPENSION OF THE STANDING ORDERS.—Lord Monteagle hoped the house would allow the Wexford, Carlow, and Dublin Bill to proceed, although it had been thrown out because of non-compliance with the Standing Orders. The objections to the bill were not in reference to its merits, but because certain notices had been served on Sunday and on Christmas-day.—Lord Redesdale said it was useless to draw up standing orders and have committees, if it was not intended to abide by their decisions. This bill had been considered by the sub-committee, who had decided that it could not be allowed to proceed. There was another tribunal—the committee of standing orders, who took cognizance of such points, and it was to this committee that an appeal ought to be made. It was idle to go on with these proceedings, if, with an adverse decision, it was competent for a noble lord, by an appeal *ad misericordiam*, to induce the house to allow the bill to proceed.—After a few words from Lord Beaumont, the motion was agreed to.

MARCH 5.—The Marquis of Londonderry presented a petition praying that the Standing Orders might be suspended as far as regarded the County of Down Railway.—Lord Redesdale, the Earl of Wicklow, and Lord Monteagle opposed the motion; so the Marquis of Londonderry would not press the matter further.

MARCH 16.—**PLANS LODGED ON SUNDAY.**—Lord Kinnaird presented a petition from a place in Scotland, complaining that Sunday had been appointed as the day for receiving the plans at the Board of Trade, and that the notices were pasted on the church-doors.—The Earl of Dalhousie said that the church-doors had been selected as the most public place for posting the notices, and there appeared no reason why that course which was advisable in England should not also be adopted in Scotland. With regard to the other point, the law-officers of the Crown gave their opinion that it was necessary that the plans of the new railways, which involved the expenditure of an amount of many millions of money, should be lodged by the 30th of November. That necessity arose out of the Standing Orders of Parliament. He hoped, however, shortly to submit changes in the resolutions which would meet the public feeling.

MARCH 19.—The presentation of a petition by the Marquis of Clanricarde complaining of the substitution by the London and York Railway Company of an amended contract deed for the one before the House last year, gave rise to a lengthened conversation, which led to no result.—Lord Kinnaird gave notice that on Thursday week he should move for a committee to take into consideration the propriety of enforcing one uniform system of management on railroads already in operation, and those in course of construction.

COMMONS.

FEB. 21.—WEST RIDING UNION.—Mr. Estcourt moved "That so much of the report of the select committee on Standing Orders, presented to the House on Friday last, as relates to the West Riding Union Railway petition; as also, that the order of the House of the same day, that a bill be brought in, in consequence of that report, be annulled." He said the resolution was called for, in consequence of an error that had crept into the report of the Standing Orders committee made on Friday night. The report as brought up to the House, recommended that in the case of the West Riding Union Railway bill, the Standing Orders ought to be dispensed with, whereas the decision of the committee was, that the Standing Orders in this case should *not* be dispensed with. The error, he felt assured, was altogether a clerical one; and he did not think the parties interested in promoting this bill had any right to complain, as it was distinctly stated to them that the committee would report again. He hoped the House would agree that the proceedings of Friday night arose from an erroneous report, and that they would annul them. Mr. C. Wood, as one of those whose names were on the back of the bill, was clearly of opinion that the parties concerned ought not to derive any advantage from the error which had been committed. At the same time, if ever there was a case with respect to which the Standing Orders might be relaxed, it was the present; because, in the first place, the advantages to be derived from the railway were undoubted, and in the second, it might be said to have the support of all the landowners and other parties interested, there being but one quarter of a mile of dissent out of 55 miles. The motion that the order of the House be null and void was then agreed to.—On the question that the report be referred back to the committee, Mr. B. Denison said the company had been exceedingly unfortunate; for last year, although their bill passed the Commons, it was thrown out by the Lords. The company had since then become amalgamated with a rival company, and there was now no serious objection against this proposed line, which he believed would greatly benefit the country through which it was to pass.—Mr. Aglionby quite concurred in the explanation given by the hon. chairman of the committee, and hoped the House would sanction his proposal. But he thought the committee ought to be permitted to take the whole facts of the case into their consideration, and not be limited to those which they had already considered.—After a few words from Lord Morpeth in favour of the bill, but concurring in the propriety of no advantage being taken of the mistake, the motion was then agreed to.

FEB. 27.—Lord Clive having moved the second reading of the Shropshire Union Railways and Canal (Chester and Wolverhampton line) bill, Mr. Thornley proposed as an amendment that the bill be read a second time that day six months. The object of the proposed railway was to shut up the canal from the ironmasters in the neighbourhood of Wolverhampton, so that the trade would be greatly inconvenienced if the railway were allowed to be constructed.—Mr. Loch opposed the amendment, on the ground that the trade of the ironmasters would be benefited rather than injured by the proposed railway; and after a few words in reply from Lord Clive, Mr. Thornley consented to withdraw his amendment.—The amendment was accordingly withdrawn, and the bill was read a second time, and ordered to be committed.—Mr. Estcourt moved "That it be an instruction to the committee of selection to refer the Direct London and Portsmouth bill, the Sheffield and Lincolnshire Junction bill, and the London and York bill, to the Chairman of Ways and Means, and to two other members, not being those whose names are on the back of the bills respectively."—Agreed to.

MARCH 3.—STANDING ORDERS ON RAILWAYS.—On the motion of Mr. Greene, the following resolution was agreed to: "That the Standing Order No. 110, requiring three clear days' notice of the second reading of a private bill; and Standing Order No. 134, requiring three clear days' notice of a

second reading to be given in the Private Bill Office; and Standing Order No. 139, requiring one clear day's notice in the Private Bill Office of the day proposed for the report of every private bill, and also for the consideration of the report; and Standing Order No. 123, requiring the reports on railway bills to be discussed every Tuesday and Thursday; and Standing Order No. 142, requiring one clear day's notice of the third reading of a bill; and Standing Order No. 124, prohibiting any private bill from passing through two stages on the same day, be suspended with respect to all bills entitled to the privileges granted by the resolutions of the House on the 7th day of July last. That such bills may be read a second time on the day following the first reading of such bills. That the committees on such bills may report, and such report may be considered on the same day with that on which the committee sits. That such bills may be read a third time on the following day."

WEST RIDING UNION RAILWAY.—Petitions from Longwood and Golcar, Halifax, and about seventy other places; from G. Mackay, Sutherland, H. Brown, J. Greenwood, and D. Harrisworth, and the Justices of the Peace in the West Riding of York, were presented, praying that the Standing Orders might be dispensed with, and the parties allowed to proceed with their bill.

MARCH 6.—AMALGAMATION OF RAILWAYS.—Mr. W. Patten wished to know whether the Government intended to take any measure this session with the view of settling the different amalgamation bills now before Parliament. The committee had directed him to put the question before they proceeded any further with the subject.—Sir G. Clerk said that the question of the amalgamation of existing railroads had been fully considered by the railway department of the Board of Trade last year; and one of the reports was devoted exclusively to this subject. In that report they laid down general rules under which such amalgamation should be permitted. In every instance the amalgamation of existing railroads was permitted, because where the railways proposed to be amalgamated lay in the same direct line, the public would be advantaged by the traffic being carried throughout the whole length of those lines under the same management. But, on the other hand, it would be depriving the public of the benefit of competition, if railroads that ran parallel to each other were permitted. He did not know whether, as a general principle, amalgamation should be permitted or not; but he was of opinion that it would be extremely inconvenient that where amalgamations were proposed to take place, that they should be referred to the same committee as those which sat on separate bills. In general, those amalgamation bills were not opposed; they came before the committee as unopposed bills, and the attention of the committee was given to bills that were opposed. He thought, in consequence, that all those bills should be referred to the same committee, who should take care that no amalgamation took place which would not be for the benefit of the public.—Sir G. Grey wished to know whether the Government would propose, as the committees were now about to sit on railway bills, any suggestions for their guidance respecting the broad and narrow gauge.—Sir G. Clerk said that he had, half an hour ago, seen the parallel evidence, and that he hoped in a week or a fortnight to lay it before the House.—Mr. F. Maule said that many of the bills would not attract the attention of the committee at all with respect to amalgamation.

MARCH 19.—DELAY OF THE BOARD OF TRADE.—Mr. Greene, in bringing up a Report from the Committee of Selection, said that great complaints from the promoters of railway bills were made against public departments, which were in the habit of delaying to the last moment clauses it was their province to supply for each of those measures, and the consequence was that considerable expense was entailed upon the parties, from the necessity, which the omission complained of caused, of re-committing the bills for the insertion of the clauses so delayed.—Sir G. Clerk apologized on the ground of the great pressure of business.—On the motion of Mr. Estcourt, the Standing

Order, No. 110, was ordered to be suspended so far as regarded the *Chichester and Bognor bill*, and the bill was read a second time and ordered to be committed.—**MAPS OF RAILWAY BILLS.**—Mr. Hume moved, pursuant to notice, the following resolution (postponed from a former day):—"That in case of bills for making, maintaining, varying, extending, or enlarging any aqueduct, archway, bridge, weir, canal, cut, dock, ferry, harbour, navigation, pier, port, railway, reservoir, tunnel, turnpike-road and waterwork, and for all other works and inclosures on tidal lands within the ordinary spring tides, a general plan showing the situation and approaches to the said aqueduct, archway, bridge, &c., should be denoted upon a sheet or sheets of the Ordnance survey when published, or else upon maps of an equivalent scale, and extending ten miles on each side; together with enlarged plans and sections of such parts of the works as are on the tidal lands within the ordinary spring tides, on a scale of not less than twenty feet to an inch, with the dimensions figured thereon, shall, on or before the 30th day of November, be deposited in the Board of Admiralty; and that the same resolution be made a Standing Order." The hon. member said he had now framed his resolution so that it should meet the views of several who would have opposed it. As the law now stood no bill for a railroad or work interfering with any river, harbour, or tidal water, could pass the House without the sanction of the Board of Admiralty. As to the propriety of such a rule no question could be raised, but the object of the resolution he had moved was to prevent delays and inconveniences. Now, the object of the resolution was to place the Admiralty in the same position as the Board of Trade, with reference to the deposits of plans and sections; and thus to enable the Admiralty to discharge the important duties assigned to them, and save the expenses consequent upon delay.—Capt. Berkeley (Gloucester) remarked that, although last year a railway bill had been thrown out in consequence of the refusal of the Admiralty to sanction the construction of a bridge over the river Severn, the promoters had reintroduced the bill this session, and had put parties interested in the navigation of that river to considerable expense. The second reading of that bill stood for Monday night, and he should oppose it to the utmost of his power.—After a discussion between Lord R. Grosvenor, Sir G. Cockburn, and others respecting the interference with the river Dee navigation by railway schemes, which the Admiralty would not sanction, the motion was carried.—**DEPOSIT OF PLANS ON SUNDAY.**—In reply to Sir R. Inglis, Sir G. Clerk promised to alter the Standing Order.—**METROPOLITAN TERMINI.**—Sir R. Peel stated, after a short discussion commenced by Mr. W. Patten, that the Government would give public notice of the course it intended on Monday next.—**LEGISLATIVE INTERFERENCE.**—Mr. Morrison moved for a special committee to inquire whether, without discouraging legitimate enterprise, conditions may not be embodied in railway Acts better fitted than those hitherto inserted to promote and secure the interests of the public. He considered that the experience of the last few years was sufficient to show that the development of traffic was going on in a way never anticipated, and he proposed that an inquiry should be instituted as to what extent it would be practicable, by means of a general revision of the existing railway Acts, to relieve the railway committees from the very heavy business now on their shoulders. Another important question was, whether any limitation in the period of leases generally given to railway Companies would be practicable or beneficial? He thought enough had been established to prove that the traffic and railroads must increase in this country as the wealth and population of the country increases. It would therefore be desirable that the revision of the rate of fares on those lines should be considered, and whether the period for which leases were generally given could not be limited without checking in the slightest degree the construction of new lines. It was impossible to deny that, when they saw how successful the plan was in France, where the lines were given on limited leases, all the capitalists of eminence in Paris,

and almost all of those in London, were prepared to bid for those lines. A determinable lease, varying from twenty-one to forty-five years, would be preferable to the present system. If it could be shown that we should be able to get railroads made in that way, and that companies would be willing to construct such public works upon a lease of forty years, or any other desirable term, surely the House could not doubt the propriety of adopting such a course. It would also, he thought, be desirable for the railways themselves. He would not advise the House to give up the principle of competition; that, however, was not enough, something more than competition was necessary in railways as well as in banking. Every year they should understand better to what extent the traffic was likely to be carried. This country possessed much greater means of constructing and working railroads than any other. The present was the opportunity for reconsidering the subject in all its aspects. He then moved for the appointment of a special committee.—Mr. Mangles would not refuse the committee. He said that the opinion in this country was, that the greatest scope should be given to private enterprise. It was true that some railroads paid large incomes, but the average returns of railroads in this country did not exceed $5\frac{1}{2}$ per cent., and he believed if all the capital were paid up, instead of large sums of money being borrowed at 3 and $3\frac{1}{2}$ per cent., to enable companies to pay higher dividends, the average return would not exceed $3\frac{1}{2}$ or 4 per cent.; and to encourage national enterprise the present prices should be maintained.—The Blackwall Railroad, which had cost more than 300,000*l.* per mile, had not for a considerable time paid anything to the shareholders for their investment, and now only returned one and a quarter per cent.; but, nevertheless, it was a most useful railroad. In England, 2,264 miles of railroad was actually open, and in 1844 Parliament had sanctioned 787 miles more, which, if actually completed, would give a total of 3,051 miles. In the Session of 1845, bills passed the House of Commons, sanctioning 2,840 more, thus making a total of 5,891 miles of railroad actually opened, or likely to be completed. That was the result of the system with which the hon. gentleman found fault; and in France there were only 876 miles of railroad actually opened. If the French system, so much lauded by the hon. gentleman, had been pursued in this country, not one tithe of the present railroads would have been opened; but we had been so successful in making our own railroads that we had constructed lines in France, and our very success was now attempted to be turned against us by the hon. gentleman. There were only the Orleans and Rouen, and as yet there was no railroad between Calais and Paris. A great portion of the Orleans and Rouen lines had been made by English capital, and a considerable premium had been paid on that capital. He predicted that before the terms of the French loans were out English fares would be lower than those of the French. Mr. Morrison's principles were unsound, and any departure from the sound English principle of open competition would be regretted.—Mr. Parker (Sheffield) was convinced that unless some check was placed on speculation, the industrial resources of the country would suffer from an undue withdrawal of capital to be invested in railways.—Mr. Hudson showed the correctness of his predictions as to the number of schemes before Parliament, and the amount of the deposits. Respecting the application of the necessary capital, Mr. Hudson then spoke as follows:—"Of the 100,000,000*l.* already mentioned, probably 20,000,000*l.* will be paid to the landowners for land which it will be necessary to purchase. Sir, that is no tax upon the surplus capital of the country; it is a mere transfer from the capitalists to the landowners. The landowner, as I stated before, either employs the money he receives in paying off mortgages, or lends it to a company engaged in constructing a railway, or employs it in some other way for his own advantage. Since the former debate, I have consulted other parties on this subject, and, from information which I possess, have ascertained certain important particulars, showing that a still further sum may be

deducted from the capital. I will state my view of the matter, which I believe to be correct. The original cost of the London and Birmingham Railway was, I believe, about 45,000*l.* per mile, and of that sum 9,000*l.* per mile was paid to landowners. The Midland Railway cost about 40,000*l.* a mile. I believe the amount was 37,000*l.* or 38,000*l.*; and 6,000*l.* or 7,000*l.* was paid for land. Generally speaking, I believe that hitherto one-fifth of the whole amount has been thus expended. For royalties, for ballast, for sleepers, and for other items connected with land, there must be allowed a further sum of 5,000,000*l.* which, like the money paid for the land itself, is not taken from the surplus capital of the country. Then I put the contractor's profit—it may be more or less, but I take the general estimate and fair average, and I hope the hon. member for Inverness will not think the amount too large—I say I put the profit of the contractor at 10 per cent. No person, I think, can say that that is too large a remuneration for the capital so employed. Well, then, I think it probable that we shall see a decrease of from two to three millions in the poor-rates, arising from the ample employment which will be given to the poor by these railway projects. I also think it probable that from 7,000,000*l.* to 9,000,000*l.* will be paid to labourers who would otherwise be unprofitably employed. On the whole, therefore, of the 100,000,000*l.* which you may be about to grant the power of raising, I think that not more than 50,000,000*l.* can be properly regarded as a tax on the surplus capital of the country. I do not think that that is a large amount, considering that, twenty or thirty years ago, we were raising from 80,000,000*l.* to 90,000,000*l.* in taxation, and that now, when we are better able to bear the burden, we are raising only about 50,000,000*l.* In 1844, 14,000,000*l.* was the amount of money allowed to be expended in railways. I sincerely believe, and to a large extent I can declare from my own knowledge, that most of that money has been expended, and that the principal lines are open, and in active operation. The 14,000,000*l.*, therefore, for which bills were passed in 1844, I put out of the account altogether. The sum estimated by Sir R. Peel, with reference to the year 1845, was 50,000,000*l.*; and from the number of lines under my own direction, I am enabled to state, that from two to three hundred miles of the railways, for which bills were passed in 1845, will probably be opened some time during the autumn of next year. I wish to give the House all the information that I possess on this subject. I feel satisfied that there need be no alarm as to the employment of capital, provided it be well and profitably invested. I think it is far more important for Parliament to take care that they do not give power to construct lines which would be unproductive to the shareholders and useless to the public, than to place limits to the progress and enterprise of this great country." He estimated the annual revenue of railways at 7,000,000*l.* The large incomes now derived from railways, and which, generally speaking, are employed by many who have large surplus means in the construction of other lines, were to be considered. Those not content with making 4, 5 or 6 per cent. go out of old concerns to invest in new lines; while those lines who are paying a steady interest are sought out by parties wishing a fair interest, and not choosing to embark in speculation. He contended that commercialists felt the injury of this constant meddling and perpetual legislation. He said—"We want to rest on some firm basis. We want to know on what principle we are to enter upon these great commercial undertakings. When only two years have elapsed since the passing of a bill, surely the hon. member might give us two more. He has stated nothing which he did not know the last time the House legislated on this subject; and he has not, in my opinion, adduced a single reason for calling on the House to go into committee, and to consider the legislation of a question which was amicably settled by an arrangement which should continue for the next seven years. We ought to have some security for our property, and some rest from the constant agitation of legislation. The hon. member for Inverness (Mr. Morrison) has got an idea that

railways are the most profitable speculations ever embarked in by private individuals. Why, sir, if we only look at the history of canals, we shall find that railways have done nothing in comparison; and yet our forefathers never attempted to interfere with canal charges and canal property. Why not let railway property stand on as stable a foundation? Her Majesty's Government seem very much inclined to concede everything except what we on this side of the house ask them to do. But on this question I will refer to railway property. I find, from the statement of the last half-yearly Reports of the different companies, that the sum of 67,283,217*l.* has been expended already in railways. Now, what is the dividend, what is the amount of money,—I was going to say, what is the amount of plunder which gentlemen who are engaged in these undertakings have to revel in? I am sure I should be very glad to meet the hon. member for Inverness by placing a railway under his management. I sincerely recommend him to try what he can do, and to tell us next year what he has been able to accomplish. If he can obtain a larger dividend through having small fares and charges than large ones, I am sure he will carry more weight with her Majesty's Government. I would willingly negotiate for him a railway, the management of which should be conducted entirely on his own principles, and then he would be able to tell the House from experience what has been the effect of low fares and charges. If he can only convince the world that a half-penny a mile is better for all parties than a penny, he will have done good service. But, sir, I do protest against gentlemen coming down to this House,—after we have taken the initiatory, and induce the people of England to invest their money,—coming down I say, to speculate upon property, the owners of which have had a fair understanding with Parliament. I cannot but feel that such a proceeding as the granting of this committee will be something like a breach of the agreement to which we came when the former bill was passed." He then alluded to the average railway dividends. There are thirty-nine railways which have been constructed at a cost of 67,000,000*l.* Of those thirty-nine, twelve pay less than 5 per cent., and fourteen between 5 and 6 per cent. Surely even the hon. gentleman will not think that two large an amount. How long these poor people remained altogether without a dividend he was not able to state. Six others named pay 8 per cent, the remaining 7 from 9 to 10 per cent. These discussions can have no good result, and the railway interest is determined firmly to maintain their rights—rights which have been granted under successive Acts of Parliament, and which I boldly aver that it is your duty to secure.—Mr. Labouchere did not think that, taking the blanks with the prizes, the profits had been enormous, and he was far from grudging those who had succeeded the well-earned reward which their intelligence and perseverance had acquired. He agreed that meddling with capital was prejudicial; but here was a system under which the whole internal communication of the country—its passengers' traffic and the carriage of all its goods—was gradually getting into the hands of a few great capitalists! When he considered the amount which had gone out in former years in the shape of loans, and when he looked at the resources and income of this country, he could feel few fears on that score. What he rather dreaded was the effect of these speculations on the labour market; but the question altogether, and especially with reference to the withdrawal of capital, was one of so much nicety, that he felt that if touched at all, it must be dealt with on the responsibility of Government, and that if Government did not come forward, that House ought not to take upon itself to interfere.—Sir G. Clerk concurred in all Mr. Labouchere had said. The number of schemes had been so materially reduced, that Her Majesty's Government felt it unnecessary to adopt any plan of selection. He gave a cautious assent to Mr. Morrison's motion; and, without pledging the Government to Mr. Morrison's course, promised him a full inquiry. He should be heartily pleased to see twenty other companies follow the example of the London and Birmingham; and voluntarily give to the

public the most favourable terms in their power.—Mr. Hayter deprecated this constant interference with the vast railway interests of the country. The Great Western alone paid to the Government last year, under this head, no less a sum than 30,000*l.*, besides what it paid along the line in the shape of local taxation, poor rates, county rates, and so on, amounting to fully another 80,000*l.* In Belgium, the railways contributed no taxes of any description to the country; and, in France, they paid no direct taxes to the Government.—Viscount Ebrington, and Messrs. Aglionby and Hume, supported the motion.—Mr. Entwisle suggested the appointment of an open committee of practical men, out of the House, to investigate the merits of railway schemes before they were brought in.—Mr. P. M. Stewart thought the motion should have emanated from the Government; Mr. Morrison did not appear to know what ought to be the tendency of the legislation that should be adopted. If the French railway tariff was compared with that of the principal English lines, the latter would be found more advantageous to the public. Take, for instance, the fares from London to Rugby; they were 1*l.*, 10*s.*, and 6*s.* 10*d.*, for the first, second, and third class passengers for a distance of 84 miles. The tariff from Paris to Rouen, an equal distance, gave 16 francs, or 13*s.* 4*d.*, 10*s.* 10*d.*, and 8*s.* 4*d.*, for the first, second, and third class; showing 8*d.* difference in favour of the rich on the French line, and 8*s.* 4*d.* against 6*s.* 10*d.* as against the poorer classes of railway travellers. It was only his wonder that fares on the English lines were so moderate, considering the expenditure incurred in the preliminary expenses. His hon. friend, the member for Inverness, had talked of the Great Leviathans, the London and Birmingham and Great Western Railway Companies, and he had likewise condemned the amalgamation that had taken place between some of the lines as having proved injurious to the public. In the instance to which he had referred was the amalgamation injurious? What had been the effect of it? In every respect the rates had been lowered; the pace also had been quickened, and the charge for transporting goods was lower than before. He thought no good would result from the committee.—Lord Worsley and Sir G. Grey supported the committee.—Sir R. Peel said that there was one important point not adverted to in his hearing during the present discussion, though, perhaps, as he had been absent for a short time, it might have been noticed in that interval. The point was, as to the course which the hon. member for Inverness would take in the committee, and whether he would not be generally expected to adhere to the principles which he had laid down in his published pamphlet. The hon. member seemed to think that great errors had been committed in respect to past railway legislation, and he had thrown out various suggestions for correcting and avoiding those errors for the future. Two of those suggestions were to be remarked: the first, whether it might not be imperative on the Legislature to reserve to itself full powers for revising the conveyance tariffs in all bills that might hereafter seek the sanction of Parliament; the second was, whether it might not be advisable to adopt the French system, and to give to each future company only a qualified and temporary interest in the railway constructed by it. But before the opinion of the committee is to be made known, a considerable time must elapse. What was to be done with the railways now in progress? That was one of the most important subjects to which the committee could direct its attention, for the purpose of avoiding past errors. Parliament had a right to correct the mistakes that had been made, and to apply truer principles to the new projects. In so doing, no rights would be violated. And where parties came again before them, asking their sanction for the amalgamation of old lines and new lines of rail, it was clear that in cases where privileges so great were asked for, Parliament in granting them had a right to impose new conditions. But would, in the mean time, all railway legislation be suspended? Would it not rather be advisable to frame a clause for insertion into every future railway bill, for the purpose of subjecting them to

any resolutions to which Parliament might in future come as to the duration of these companies? With respect to limiting the duration of railway companies, that was a very important question. Railway bills were about to be passed giving a permanent interest in the railways constructed, and this whilst a clause in the railway Act gave Parliament a power to interfere hereafter. But then there would be an inconsistency in framing a clause for the purpose of terminating the existence of a company after twenty years' duration. Such a condition inserted in railway bills would render the existence of such a company very precarious. It was of the highest importance that the mode of interference by Parliament should be accurately defined. All these considerations involved great difficulties. At the same time he gave his consent freely to the appointment of the committee. There were so many and such important new lights constantly breaking in upon the public with respect to railway results, that it ought not to be considered strange if Parliament passed measures one day, which it was compelled to revise the next. The question of railways had completely baffled the sagacity of speculators, financiers, and statesmen. Two years ago no one would have calculated upon seeing so vast a mass of railway business thrown upon the Legislature. All he hoped was, that a speedy report would be made upon the points to which he had alluded. The Parliament had a perfect right to make all necessary inquiries, and to adopt, in all bills not already passed, such precautions as might be deemed necessary.—Lord J. Russell thought Sir R. Peel's statement at the commencement of the Session produced inconveniences. He trusted, however, that on the appointment of the committee the Chancellor of the Exchequer would be prepared to state his views, and what he thought would be the best course of legislation to pursue upon the subject.—The Chancellor of the Exchequer promised the committee every assistance.—Mr. Baring was understood to suggest that some steps should be taken to obviate the necessity of proving the same thing before both Houses of Parliament. Whether it might be done by a joint committee, or some such expedient, he did not know; he merely threw out the suggestion, in the hope that the subject might engage the attention of Government.—Mr. Horsman, who spoke in a low tone of voice, complained of the extravagance of railway charges.—Mr. Warren suggested that the fares should be more equal.—The motion was then carried.

MARCH 20.—MANCHESTER AND SOUTHAMPTON.—An immense number of petitions were presented in favour.—Mr. Estcourt moved that it be an instruction to the Select Committee on Petitions for Private Bills, to take into their earliest consideration the several following bills:—Perth and Inverness; Inverness and Elgin Junction; Morayshire; Abardeen, Banff and Elgin; Kilmarnock and Troon; Paisley, Barrhead and Hurler; Kilmarnock and Ayr Direct; and Hamilton and Strathaven.—Mr. Hodgson hoped the House would not agree to the motion, although brought forward by the chairman of the Standing Orders Committee, as, if agreed to, it would put many parties to a very great expense. If the hon. member came down asking to put bills out of their order, it was quite clear that the persons promoting other bills could have no idea what time they would be called on, and this would necessarily involve a very heavy expense on the promoters.—Mr. E. Ellice, jun., said he knew one instance where a railway was very likely to be called on, but by some new arrangement of the Standing Orders Committee—an arrangement entered into without the knowledge of the parties—they were put back for three weeks, and the parties opposing were obliged to support their witnesses in town.—Mr. Strutt said that if the Committee on Select Petitions wished to do their duty to the public, they would take the bills in their regular order. He invariably did so, unless he had the consent in writing of promoters and objectors to its postponement. The motion was then put and agreed to.

RAILWAY AMALGAMATION.—Mr. W. Patten gave notice that on Monday

he should move for a Select Committee to inquire whether railway amalgamation were consistent with the commercial interests of the country.

MARCH 23.—RAILWAY AMALGAMATION.—Mr. W. Patten moved for "a Select Committee to consider how far, and under what regulations, the further amalgamation of railways would be consistent with a due regard to the commercial and general interests of the country." He did not bring forward this motion in any spirit of disapproval of the directors or promoters of railways, because he believed they were entitled to the warmest thanks of the community, for the anxiety and energy with which they had endeavoured to comply with the demands of the country. Neither, on the other hand, was it because he was opposed to the principle of railway amalgamation; for there would be no objection to the system, if it could be shown that the good of the public could coexist with benefit to the promoters. The extent to which it was proposed to carry amalgamation in this country was such as to make it highly desirable for the house to obtain some accurate calculation and some fixed data on which to proceed, before it committed itself finally to the system. There were at present before the house thirty-three amalgamation bills, and on examination of these it would be found that they were of such a nature as to throw the railway management from one end of the kingdom to the other, and in all directions, into the hands of a very few companies. Some of these bills proposed to throw the management of two, of three, or of six companies, into the hands of one company; and it was unnecessary to point out, that if this object was attained, there would at once be an end of that competition on which alone, hitherto, the public had had to rely for reasonable fares and charges for traffic. To some of these bills opposition would be offered; but to others there would be no opposition, and they might therefore be passed before public attention was awakened to the evil involved, and before the parties affected could prepare themselves for exposing the consequences to the general interest. There were also various bills for amalgamating canals with railways which crossed the same district, the manifest object being, by buying up the competing mode of conveyance, to work both together, and thus to secure what, when worked separately, was not obtained—a profit. Some of the bills sought to establish one connecting link of railway from Scotland to London, and from London to Bristol, which should altogether be worked by one company; thus destroying competition, and consequently injuring the public. The importance of what step the house, under such circumstances, took in either sanctioning or opposing the system, would, therefore, be seen. The question was what was to be done? The committee, of which he (Mr. W. Patten) had been the chairman, had decided that only one of two courses could be approved, either to refer all amalgamation bills to some group, or to a select committee. The first would be a very unusual, and he was of opinion it would not prove an effectual or practicable mode of dealing with the subject; and he thought that by referring it to the committee moved for by the hon. member for Inverness (Mr. Morrison), there would be a delay beyond the present session; he had, therefore, brought forward the present motion.—Mr. Entwistle seconded the motion.—Sir G. Clerk said, in the discussion of the motion by the hon. member for Inverness, it had been said that unless the house was prepared to take certain precautions against abuses on the part of railway companies, all the communications in the kingdom would vest in bodies who would be beyond the control of parliament. But he did not quite perceive the precise object of the committee now moved for. If it was to lay down certain general rules, under which the house should permit certain railway companies to be amalgamated and others not, it appeared to him that the committee would have very little to do but to give a Parliamentary sanction to the principles embodied in the report of the railway committee of the Board of Trade last year. But after such general rules had been laid down, there would be a difficulty, where lines had opposite interests, and where, through fear of competition,

companies are induced to combine for self-defence, where it was the interest of the public as well as the companies that such amalgamation should take place, there would still be a difficulty, after the committee had laid down general rules, to know how to apply them, and he was afraid that this would only be the first difficulty got over. He trusted that, before whatever tribunal these cases came, it would look with extreme jealousy at all proposals for amalgamation. The difficulty was to know what would be the effect of these amalgamations hereafter. The principle laid down by the Board of Trade was a sound one, namely, unless public inconvenience was likely to arise, rather to postpone amalgamation than to consent to what, if once done, could never be got rid of. He therefore hoped that, after this committee was appointed, it would lay down such rules as would accord with the principles established by the Board of Trade, which had pointed out this evil last year, and he regretted that its recommendations had not been carried into effect. If he did not think that the other committee, which had been moved for by the hon. member for Inverness, would have under its consideration a sufficiently wide field of inquiry, he should have thought that this subject ought to be committed to that committee. Under the circumstances, however, he would support the motion of his hon. friend, for the appointment of this committee.—Mr. F. Baring agreed with the right hon. baronet, that this subject was one of great difficulty and importance. The question embraced two points; first, how they ought to lay down rules for the present Session, and secondly, how they ought to provide for future cases. He doubted, with regard to railway bills now before the House, whether another proposition would not provide a better plan, namely, that of selecting a committee of five, to whom all amalgamation bills should be referred, and giving them the power, in cases of unopposed bills, of sending for witnesses, and of communicating with the Board of Trade. If the committee now moved for were appointed, the House would perhaps get no report this Session, or at best a very hurried report, which could be of no present use. The right hon. baronet (Sir G. Clerk) had said, that the report of the Board of Trade last year had not been sufficiently attended to by the House. That very report stated, as to laying down general rules for amalgamation, that "nothing could be more difficult than to lay down any general principles by which all amalgamations should be regulated." They would have the same uncertainty now, and he was afraid they could not settle the rules for amalgamation until they had settled the general principles of railways legislation. If they were prepared to rely upon the principle of competition alone, then, following that one principle, they must reject all amalgamations; for if they allowed amalgamation at all, they violated the principle of competition. But if they reserved some power of ministerial interference, adopting something of the French system, they need not be so jealous. He thought the amalgamation committee would report that it was impossible to lay down any general rules till they got the report of the other committee. His impression was, that the appointment of committees, and the attempt to legislate through committees, would produce inefficient legislation; and that it was proper to compel the Government to take this, as well as other subjects, under their consideration, and to bring forward measures for regulating railway legislation upon their own responsibility as a Government. Till then they would have only inefficient legislation upon this subject. It was natural that the Government should prefer to devolve this duty upon committees of this House rather than take it upon themselves, as it was a very awkward subject to deal with; but he believed that until the House determined that Government should undertake it, they would get only inefficient legislation. He did not object to the committee, but he should have preferred the other course.—Sir R. Peel said, the right hon. gentleman seemed to think that her Majesty's Government had neglected the great subject of railway legislation. He thought that the House ought to share this reproach with the Govern-

ment. He only wished that hon. members would read the able report on this subject made by the Committee of the Board of Trade last year. The Board laid down certain principles, which they considered proper to be applied to cases of amalgamation brought before Parliament, admitting that there were cases in which it might be for the public advantage that they should be relaxed; and there was no doubt there were cases in which amalgamation, under proper conditions, would be for the advantage of the public, as well as of the railway companies. The recommendations of the Board of Trade, however, were not acceded to by the House, and he only asked the House to share the reproach of the present state of things with the Government. The House was actually jealous of the interference of the Government; the House overruled, in many cases, the decisions of the Board of Trade, and it would perceive in this a reason why her Majesty's Government wished that the interference of the executive should be called for by a decision of the House of Commons as necessary for the public interests, rather than it should, a second time, interfere on its own motion. He could not help thinking that there was some difficulty in adopting the proposition of his hon. friend (Mr. W. Patten). The house had adopted the motion of the hon. member for Inverness, and if they had another committee to consider the principles of amalgamation, he feared they might have different reports from each, and a conflict of opinions. They had adopted a proposition with respect to railways that had termini within the city of London and the metropolis, to reserve them for a separate inquiry by a commission appointed by the Crown; and perhaps it might not be inexpedient to pursue a similar course here, by appointing a committee, not a commission, on the subject of amalgamation, so far as regarded bills now presented; that a committee should be appointed to consider, not the principles of amalgamation generally, but a special committee to consider bills now introduced, in which amalgamation is proposed, and to suggest such general principles as seemed most applicable to such cases. This would not bring the committee into conflict with the committees of the hon. member for Inverness, and he feared that, unless a distinct line were drawn between the committee now moved for and that of the hon. member for Inverness, there might be a conflict of opinion, which would involve the House in greater difficulty.—Mr. F. Maule said, if the House had authorized the report of the Board of Trade it would have been more satisfactory, for a more able report had never been seen. Unfortunately, the House had set aside that report. His opinion was, that the committee moved for by his hon. friend should lay down some general rules for amalgamation, adopting, if they pleased, the suggestions of the Board of Trade last year, and those rules, when approved by the House, might be acted upon by the group committees before whom the bills should come.—Lord Ebrington said, the right hon. baronet lamented that the House had not adopted the report of the Committee of the Board of Trade; but he would allow him (Lord Ebrington) to remind him that he was the first to surrender that report. He (Lord Ebrington) and other members around him, impressed with the ability of that report, expected that the Government would have upheld it; but the right hon. baronet had been the first to surrender it. He confessed it appeared to him rather hard that the Government should attribute blame to the Board of Trade, when the fact was that the reports of the Board resulted from the labours and the able investigation of gentlemen who were themselves members of the same cabinet as the present Government.—Sir R. Peel said the noble lord was mistaken in supposing that the Government, as a Government, had actively interfered with any private bill; and, for his part, he should be very sorry to see the Government interfering with any decisions of the Board of Trade. But when a great question arose, both the Government and the House of Commons were called upon to exercise their own judgment independently of any other parties. So far from disregarding the reports of the Board of Trade, as the noble lord supposed, he had,

on more than one occasion, come down to that House to support the Board of Trade.—Sir G. Grey said that the question before them was one perfectly distinct from a private bill. He thought that the Government might propose a certain series of resolutions founded upon the reports of the Board of Trade; those resolutions, if affirmed, might go before the committees on the amalgamation bills. To those committees such resolutions might serve as guides, diminishing both their labour and their responsibility. With an arrangement of that kind, he thought that any committee preliminary to the committee on the bill would be unnecessary. According to the present practice, there never was sufficient information before the House to enable them to debate a railway bill upon its second reading; but with the preliminary information which they might now hope to obtain, it would be practicable for them to discuss any bill of that sort, either before or after the second reading.—Mr. Packington wished to remind the House that the question before them had been brought forward at the request of committees themselves, who want to have some general principles laid down for the government of their conduct; and no one could be surprised at this, when there were as many as thirty-three bills before them.—Mr. P. M. Stewart observed that there were three propositions before them. One had been brought forward by the honourable member for North Lancashire, the other by his honourable friend the member for Inverness, and another by the right honourable baronet at the head of the Government; and it appeared to him that the last of these did all but meet what might be called the business requisitions of the matter.—Mr. Morrison thought that there had been enough of temporary legislation, and that now there was nothing which they so much wanted as a body of general rules and principles. It was true that Parliament had not treated railways as legal monopolies, but the Government must regard them as practical monopolies. It was only the cheap fare lines that should be made.—Mr. Labouchere agreed with his right hon. friend the member for Devonport, that it would be better not to appoint a committee to consider the general question of amalgamations, which would be one of the main subjects to be brought before the committee granted to the hon. member for Inverness (Mr. Morrison). He thought they could not take a safer guide for the amalgamations then before the House than the principles laid down by the Board of Trade, and he hoped the Government would undertake to consider the question, as they could do so better than leaving it in the hands of the House of Commons. As to referring the thirty-three amalgamation bills to one committee of five members, to consider not only the general principle, but the particular merits, he thought there would hardly be a survivor of such a committee at the end of the session.—Mr. Duncombe said, the hon. member had not told them what they were to do with the thirty-three bills. He had himself sat on the committee on the bill for amalgamating the Grand Junction, the Manchester and Liverpool, and the Birmingham and Manchester, which was opposed by the merchants of Manchester, and the committee felt great difficulty, because there were no distinct principles to guide them. He thought a preliminary committee should be appointed to lay down those principles before there were committees on the merits of the different bills. There were two kinds of amalgamation,—one for the public benefit, as in the adoption of a single management for continuous lines, and the other for private interests, as in the case of competing lines; and it was against the latter that Parliament had to guard, otherwise they would give a monster monopoly to one particular party having a longer purse than another, which would be carried to a great extent, unless the House should interfere.—The Chancellor of the Exchequer much agreed in the opinion of the hon. gentleman who had just sat down. It would be of advantage to determine, by a committee of that House, the general directions applicable to particular classes of what were called amalgamation bills. Heretofore they had rejected the recommendations of the Board of Trade, and it was necessary

therefore, that the House should take the initiative. It was quite true that there were two classes of amalgamations; by the one no harm would be done, but by the other they were confirming permanent monopolies; a committee to consider this question would not interfere with that of the hon. member for Inverness.—Mr. Hume said, there was nothing pressing in the railway amalgamation bills before the House, and he advised the postponement of the whole till the House should have the report of the committee.—Lord H. Vane agreed in that suggestion; because in some instances these amalgamations would be a benefit, and in others they would be a great injury to the public.—Mr. W. Patten would make an alteration in the words of his motion to meet what seemed the general opinion of the House. He would withdraw his original motion and move—"That a special committee be appointed to consider the principles of amalgamation as applicable to railway and canal bills now under the consideration of Parliament;" and he would follow that up by moving that the report of the Railway Department of the Board of Trade dated the 7th of May, 1845, be referred to such committee. The original motion having been withdrawn, an amended motion was put and agreed to.

RAILWAY MEETINGS.

LANCASTER AND PRESTON.

Feb. 18.—Special Meeting, to consider the arrangement entered into between the directors of this company and those of the Lancaster and Carlisle, for an amalgamation of the two companies. Mr. G. Burrow in the chair.

The secretary read the directors' proposals for amalgamation, and discussion ensued. The chairman and Mr. Kay, a director, advocated the amalgamation, and on the other, Mr. Higgin, a former director, and Mr. Kynaston opposed it. An amendment was moved by these gentlemen, that the amalgamation be *not* affirmed. Mr. Willan and Mr. M'Kerrow supported the amendment, which was carried unanimously.

NORTH UNION.

Feb. 26.—Half-yearly Meeting.—Mr. T. W. Rathbone in the chair. Mr. J. Chapman read the report.

The chairman said that in consequence of the agreement between the North Union Railway and Grand Junction Railway and Leeds and Manchester not being quite clear, a question had arisen as to who was to pay a certain amount for the payment of dividends and transfer of stock; and to put an end to the dispute, it was proposed that both the latter companies should jointly subscribe 2,000*l.*—that the North Union should subscribe another 2,000*l.*, and that this sum of 4,000*l.* should constitute a fund for North Union purposes, and moved that it be agreed to.

The motion was carried; the report was adopted; the retiring directors were re-elected; and auditors were appointed for the Ribblesdale Navigation Company.

LEEDS AND BRADFORD.

Feb. 20.—Half-yearly Meeting.—Mr. G. Rand, in the absence of Mr. Hudson, in the chair.

The report and accounts were read by Mr. Greenlaw. A report from Mr.

Young, the engineer, was read, which showed the satisfactory condition of the works on the line. The only difficulty he apprehended to its being opened in June, was the completion of the stations at Leeds and Bradford, owing to the late period at which they had been put in possession of the land.

LYNN AND ELY.

Feb. 26.—Half-yearly Meeting.—Sir W. B. Folkes in the chair.

Mr. W. Williams read the reports of the directors and the engineer.

The receipts showed an amount of 58,621*l.*, and there was a balance of 15,000*l.*

Resolutions were passed, appointing the salary of the secretary at 200*l.* per annum. Mr. Self, the auditor, was re-elected, and a sum of 40*l.* per annum granted to the auditors. The retiring directors were re-elected, and the sum of 600*l.* was given them for their past services.

LYNN AND DEREHAM.

Feb. 26.—Half-yearly Meeting.—Mr. H. C. Lacy in the chair.

Mr. Williams read the directors' report, which was similar in substance to that of the Lynn and Ely, also the report of the engineer. The progress of the works had occasioned the necessity of making a second call of 5*l.* per share. The receipts and payments have amounted to 48,836*l.*

ELY AND HUNTINGDON.

Feb. 26.—Half-yearly Meeting.—Mr. H. C. Lacy in the chair.

Mr. Williams read the reports of directors and engineer.

The cash accounts, appended to the report, showed the receipts, to the 31st of January, to have been 43,204*l.* 19*s.* 1*d.*, of which, excepting a balance in the banker's hands, 17,607*l.* 18*s.* had been expended.

The chairman stated that the consent of the Bedford Level corporation to cross the river was likely to be obtained at an early period.

The report was then carried; a salary of 200*l.* per annum voted to the secretary; the retiring directors re-elected and a sum of 600*l.* voted to them for their duties; and the auditor re-appointed with a vote of 40*l.* per annum.

EASTERN UNION.

Feb. 26.—Half-yearly Meeting.—Mr. J. C. Cobbold in the chair.

The report was read. The total receipts up to the present time amounted to 167,651*l.*, and the expenses to 165,221*l.*

SOUTH WALES.

Feb. 25.—Second Half-yearly Meeting.—Mr. Russell, M.P., in the chair.

The chairman observed that last year some forty-six schemes affecting this company had been projected, of which only fifteen were likely to be investigated by Parliament. Some of these would be beneficial to this company, and at the last meeting in November, he specified those which the proprietors were disposed to assist. In addition he would now mention the Saundersfoot and Tenby, the Waterford, Wexford, Wicklow and Dublin, and the Cork and Waterford. He then noticed the branches and deviations proposed to be undertaken, which are set forth in the report. He said that the first Lord of the Admiralty had promised a deputation to give the scheme for passing the Severn his fullest consideration. The report on the gauges created an obstacle, but he did not "entertain the shadow of a doubt they must reject the unfair and unsound, the violent and impracticable re-

commendations which involved large expenditure, waste of capital, and breach of public faith;" and because "they would destroy that healthy rivalry and competition between the two systems to which are owing all the increased accommodation and safety and diminished charges."

The report was read and unanimously adopted.

NORTH WALES.

Feb. 26.—First Half-yearly Meeting.—Mr. W. Bulkeley Hughes, M.P., in the chair.

The chairman stated that the works had not commenced, nevertheless, a portion of the line between Bangor and Carnarvon had been let to Messrs. Jackson. The cause of the delay was owing to the altered elevation of the Chester and Holyhead line, with which the North Wales desired to form a junction.

The secretary read the report and accounts, which showed an available balance of 32,824*l.* 12*s.* 1*d.*

Sir J. Rennie stated that the elevation of the Chester and Holyhead line of about 25 feet, would involve an expense of about 12,000*l.*, and the chairman, in reply to Dr. Wolcot, said the number of unpaid shares had been considerably reduced since the publication of the report; in fact, only 160 shares now remained unpaid, so that instead of 1,871*l.* 15*s.* only 360*l.* were unpaid.

A resolution was passed declaring the forfeiture of these shares.

WILTS, SOMERSET AND WEYMOUTH.

Feb. 24.—First Half-yearly Meeting.—Sir John Awdry in the chair.—The report read stated that the extensions and deviations would cost 240,000*l.* The works were now in progress both on the northern and southern divisions. Great surprise was created by the decision of the gauge commissioners, but it was hoped no step would be taken until the evidence was published. The statements of receipts and expenditure up to the 31st of December last was read; deposits on 30,000 shares, at 2*l.* 10*s.* per share, had been paid, which, with 66*l.* 15*s.* for registration fees, made a total of 75,066*l.* 15*s.* After payment of expenses, a balance of 54,362*l.* remains in hand. The engineering expenses prior to the Act being obtained were 10,830*l.*, since then 3,000*l.*

EDINBURGH AND GLASGOW.

At the Half-yearly Meeting Mr. Wright read the report. It showed that the receipts for the half-year were 73,273*l.* 3*s.* 10*d.*; the working expenses, 23,747*l.* 13*s.* 8*d.*; interest on loans, passenger duty, and taxes, 10,153*l.* 1*s.* 3*d.*; balance at credit of last account, surplus of income, 39,372*l.* 8*s.* 11*d.*; balance at credit of last account, 1,452*l.* 16*s.* 10*d.* The directors proposed a dividend of 37,968*l.* 15*s.*, free from deduction of income tax: this is 30*s.* per share on original shares of 50*l.*, 7*s.* 6*d.* on old quarter shares, 3*s.* 9*d.* on new quarter shares, or 6 per cent. per annum on the whole stock; this, after paying 1,107*l.* 8*s.* 6*d.* of income-tax, would leave 1,749*l.* 2*s.* 3*d.* to be carried to the credit of next account.

The chairman explained why, with the rapid extension of the company's traffic, a larger dividend was not made. The increase of passengers during the last half-year was 17 per cent. and the per centage was highest among the higher class of passengers. The increase on the goods traffic in the half-year was 84,309 tons. This was while working with their own unaided resources. Since the agreement with the Canal Company it was indifferent whether goods went by canal or railway. The traffic was increasing both on the railway and the canal. The time for high rates had gone past. In consequence of the failure of the negotiation with the Edinburgh, Leith and

Granton Company, the Edinburgh and Glasgow had joined with the Caledonian in a contemplated line from Edinburgh to Leith and Granton. He moved that the recommendations of the report be adopted, and the retiring directors re-elected, which was unanimously adopted.

Sir A. Agnew's motion on Sunday travelling was negatived.

EDINBURGH AND NORTHERN.

Feb. 19.—Special Meeting.—Mr. J. Learmonth in the chair.

The report stated that the receipts had amounted to 83,613*l.*, leaving, after expenditure, a balance of 42,879*l.* The report of Mr. Grainger, the engineer, stated that, in consequence of deviations which had been resolved on, the original line of 41½ miles would be much reduced. The contracts in operation would be completed by Whitsuntide, 1847. The locomotives and rails had been contracted for.

MIDDLESBOROUGH AND REDCAR.

Feb. 18.—Half-yearly Meeting.—Mr. G. H. Wilkinson in the chair.

The secretary read the report.

The chairman observed, that it was highly gratifying to the directors to present so satisfactory a report. Great progress had been made with the works, and the directors hoped that the line would be opened on the 1st of June next. Their engineer would receive a premium of 150*l.* if this were the case, and thus the whole of the Redcar traffic would be secured during the bathing season. A double line of rails would be laid down, as a larger amount of traffic was now looked for than at first. For the new station at Middlesborough, which was highly necessary, to be erected by the Stockton and Darlington, the company would pay 180*l.* a year rent for use of it for five years, or some other term, subject to a revision afterwards. The erection of gas works at Redcar would improve the town considerably, and an ample return might be expected from the inhabitants willing to consume gas in their shops. He therefore recommended this investment to the shareholders. Various expenses having been incurred, not originally contemplated, it had been determined to create new shares, in proportion of one to every three original shares. Parties not possessing three shares, or a surplus which entitled them to the proportion of a new share, would be allowed to sell or join such surplus with any other shareholder, so as to enable them to take their just proportion.

Resolutions were carried for adopting the report.

SCOTTISH CENTRAL.

Feb. 16.—Second Half-yearly and Special Meeting.—Major W. Moray Stirling in the chair.

The report, detailing the progress of works and the financial state of the company, was read and adopted. The meeting thereupon became special, in order to confirm (which they did unanimously) the agreements for amalgamation, entered into with the Edinburgh and Glasgow, the proprietors of the Forth and Clyde Navigation, and those of the Monkland Canal Navigation.

CALEDONIAN.

Feb. 26.—Half-yearly Meeting.—Mr. John Houldsworth, of Glasgow, in the chair.

The secretary read the report of the directors. It appeared from it that the receipts had been 402,784*l.*, whilst the expenditure was 195,142*l.*; leaving a balance of 207,641*l.* The report of Messrs. Locke and Errington, the engineers, showed that the works progress upon the main line, the line to Edinburgh, and on the Castlecary branch.

The report was carried unanimously.

Mr. Bridges, W.S., rose to submit a motion against Sabbath travelling; but as the subject had not been before the directors, he withdrew it.

WATERFORD AND LIMERICK.

Feb. 18.—First Half-yearly Meeting.—The report, read by Mr. W. S. Saunders, showed that the amount received had been 107,488*l.*; disbursed, 23,114*l.*; balance, 84,374*l.*; out of which 6,000*l.* had been paid for land, and 11,000*l.* for rails. Mr. Dargan, the contractor, promised the completion of the line from Limerick to Tipperary early next year.

DUNDALK AND ENNISKILLEN.

Feb. 19.—Second Half-yearly Meeting.—M. J. N. Blake in the chair.

The report stated that there is 51,302*l.* in hand, available for prosecution of works. The first and second contracts of about ten miles each, which, commencing at Dundalk, will complete the line to a point beyond the town of Castleblaney, have been let, the first to Messrs. Dargan and McCormick for 48,000*l.*, and the latter to Messrs. Coyle and Atkinson for 66,752*l.* Contracts have also been made with several parties for a considerable supply of sleepers, to be delivered in Dundalk and Castleblaney in May and August next.

LONDONDERRY AND ENNISKILLEN.

Feb. 25.—Half-yearly Meeting.—Mr. G. G. Frith in the chair.

The report was read.

The chairman, referring to Sir J. Macneil, said he had refused to submit to arbitration, and had brought an action at Dublin, the result of which was a verdict giving Sir J. Macneil considerably less than the sum first offered by the directors.

Mr. Letham seconded the motion for adopting the report. In speaking of the merits of the line, he remarked that the terminus at Enniskillen would bring a great deal of traffic into that town, which must of course pass over their line; also the facilities for travelling to Dublin, afforded by the Dublin and Enniskillen Railway, would greatly increase the amount of travelling.

The report was adopted unanimously.

Sir R. A. Fergusson and Mr. Vandeput moved and seconded a resolution for paying the directors an annual sum of 800*l.* The resolution passed without dissent.

DUBLIN AND BELFAST.

Feb. 21.—Second Half-yearly Meeting.—The Earl of Charlemont in the chair.

The secretary read the report.

1,300*l.* was voted as the salary of the directors from the time of the Act, and the salary of the secretary fixed at 250*l.* a year. 25*l.* a year was passed for the auditing of the accounts.

MANCHESTER AND LEEDS.

The nineteenth Half-yearly and Special Meeting was held on March 14.—Mr. Houldsworth in the chair. He attributed the discrepancy between the progress of their goods traffic and passenger traffic,—the receipts in the former branch of revenue having fallen off, from a progressive increase, at the rate of 900*l.* a week, in November, to one of 100*l.* to 150*l.* only; whilst the passenger traffic had continued steadily to increase, and was 470*l.* or 500*l.* more per week than in the last half-year,—to the less active state of trade in

Yorkshire and Lancashire. There was an increase in the working expenses, which was owing to the putting on of new trains, partly to accommodate short traffic, but which had led to a great increase of that traffic. After deducting 10,000*l.* from the receipts for the depreciation fund, and paying for interest upon active capital employed, there was a surplus of 76,000*l.* for dividends, which was equal to 5 per cent. for the half-year; but the directors recommended the reservation of the amount, after dividing 4 per cent., on the ground that at the end of the next half-year a portion of the receipts would have to go to payment of dividend on the fifth shares. He regretted that they were not more successful in their endeavours to carry the West Riding Union scheme, a circumstance which the directors deplored as much as their friends in Yorkshire. As regards the ground upon which the West Riding Union line was thrown out, he could not discover that the points omitted in the plans were of a character to throw out the most trivial scheme in the country. He had it on the authority of their engineer, as well as on that of their solicitor, that their plans were as perfect as any that had been laid before Parliament during the present session.

LEEDS AND THIRSK.

Feb. 28.—Half-yearly Meeting.—Mr. H. C. Marshall in the chair. He explained that, in consequence of the competition threatened by the Leeds and Bradford, the Lancashire and Yorkshire North-Eastern, and the York and Lancaster, the directors had thought it desirable to form an alliance, and accordingly, had negotiated with the Lancashire and Yorkshire North-Eastern. An agreement had been entered into with them, and the shareholders would expect to hear of the conditions of it. It was an agreement to purchase this line, the terms being that this company shall take capital in it to the value of the amount paid up, the shareholders in the Lancashire and Yorkshire North-Eastern securing the profits up to 4 per cent., and an equal division between them and the lessees of the further profits of the undertaking. It had been decided upon that this company should nominate a portion of the directors; the number is not yet precisely settled, but no doubt they would be such a proportion as would be a sufficient guarantee to this company. With this understanding the Lancashire and Yorkshire North-Eastern was receiving the support of the directors of the Leeds and Thirsk. The Leeds and Bradford had subsequently withdrawn their scheme for an extension into the valley of the Wharfe. The York and Lancaster was still in the field, but there seemed a prospect of the scheme being placed in the hands of a company which was in alliance with this. Another subject was the branch effecting the junction with the Leeds and Bradford, for the purposes of the Bedford traffic. The proposal to carry out this branch had originated in negotiations with the Leeds and Bradford Company for taking their traffic on the line of this company. The plans proposed by Mr. Grainger, the engineer, were on a steep gradient, and they had been thought objectionable; and a proposition had been made to construct a branch in going from the valley of the Wharfe. With respect to the entrance into Leeds, Mr. Grainger had designed a route which would bring them into the town on a gradient of 1 in 100, instead of one twice as steep, as originally contemplated. The directors had gone into the question again, and consulted Mr. Cubitt. The merits of each were before him, and his report would soon be delivered. With reference to their proposed branches, which opened the valley of the Nidd, he observed that the north-eastern extension of the line appeared to be most important, and it should be pushed forward this session of Parliament.

HULL AND SELBY.

Feb. 28.—Half-yearly Meeting.—Mr. R. Tottie in the chair. He alluded to the doubts which he had expressed at a former meeting as to the

propriety of keeping back from the dividends a sufficient sum to enable them to meet whatever might be the decision of the arbitrator, and said he trusted the meeting would now agree with him, that the directors had acted wisely in the course they had pursued; secondly, that the stipulated payment had been made by the York and North Midland Company; and lastly, this arbitration referred to the issue as to who were liable for the loss sustained by the fire which occurred at Hesse on the 12th of December, 1844. The referee, Mr. Glyn, of the London and Birmingham Railway, had decided that the loss was to be borne by the Hull and Selby Company, inasmuch as it had occurred upon their line, and they were liable for the damage sustained by goods which they could have originally rejected. With the exception of this arbitration, and the all-important one of declaring the dividend, he did not see any other points which required observation from him. He then moved, "That, agreeably to the recommendation of the directors, a dividend of *2l. 7s. 6d.*, free of income tax, be declared upon each *50l.* share capital stock; and that the same be payable on and after the 5th of March, at the usual banks of the company." In answer to a question from Mr. Watson, of Leeds, the chairman would not undertake to say whether there would or would not be a reduction next half-year from the *2l. 10s.* per share guaranteed. There would, of course, be a reduction on account of the income tax; but he was not at all prepared to say whether that would be all or not.

LIVERPOOL AND BURY.

FEB. 28.—HALF-YEARLY MEETING.—The chair was occupied by Mr. J. Brancker.

The Secretary read the report, which stated that considerable progress had been made in carrying on the works; the contracts for the works on the main line had been made, except on the length of the arching from Boundary Street to Love Lane, and in a few days the remaining contracts would be disposed of. A special general meeting will be held, at which the bills for effecting the parliamentary measures, which the directors with their sanction were now prosecuting, will be submitted to the proprietors in compliance with the Standing Orders. From the statement of accounts, it appeared there had been received *216,179l.*; and expended *25,106l.*, leaving a balance in favour of the company to the amount of *191,073l.*

OXFORD, WORCESTER, AND WOLVERHAMPTON.

FEB. 27.—HALF-YEARLY MEETING.—Mr. J. F. Rufford in the chair. He observed, that if the recommendation contained in the Report of the Gauge Commissioners was to be acted upon, the Oxford, Worcester, and Wolverhampton must abandon their project of the broad gauge, than which nothing could be more unreasonable. Instead of their line being based upon the broad gauge, they would be required to sink down to the narrow gauge. He then directed attention to the report. He spoke of the friendly relations between the company and the Great Western, which had behaved with straightforward liberality. At the last meeting of the company a discussion took place which had not benefited the undertaking. Some gentlemen were of opinion that it would have been better if they were to be a separate company, and quite independent of the Great Western. He and his brother directors thought otherwise, and they were accordingly leased to them for 999 years, and they could not be released. He could tell them that they were better leased to them at 4 per cent. than if they were independent. Their income would be greater, their expenses less, and their balance sheet would show greater profits than if they were an independent line. He accounted for the delay noticed in the report by the recent demand for surveyors, &c.; but the works would now proceed immediately. The Birmingham, Wolverhampton, and Dudley would be highly beneficial as a feeder to

this company, and accordingly they had taken shares to the amount of 100,000*l.* In conclusion, he said that they would close the books in June, and pay a dividend of 4 per cent., and continue to pay it during their operations.

Resolutions empowering the directors to make the necessary modifications of the terms of the lease with the Great Western, and confirming the subscriptions to the Worcester and Port Dynllaen, and the Birmingham, Wolverhampton, and Dudley, &c., were then passed.

LOWESTOFT RAILWAY AND HARBOUR.

FEB. 28.—FIRST HALF-YEARLY MEETING.—Mr. E. Leather in the chair.

The Chairman said, that, living on the spot, he was happy to say the works were steadily progressing. He did hope that they should be able to carry out the project of making Lowestoft a harbour of refuge.

Mr. Till, the secretary, read the report. It stated that all the land required for the railway has been determined without the necessity of referring a case to a jury. The two bridges over the Yare and Waveney were works of great difficulty, and would influence the time of opening the line. The castings were preparing in London, under the direction of the company's engineer, and were expected to be ready in July next. Messrs. Grisell and Peto had been contracted with (including the purchase of land) at a price under the parliamentary estimate. The plans for improving the harbour have been approved of by the Lords of the Admiralty, and an arrangement has been made for proceeding rapidly with the works. The total receipts to the 31st of December last were 24,463*l.* 2*s.* 8*d.*; the total disbursements, 6,064*l.* 7*s.*; the balance in hand, 18,398*l.* 15*s.* 8*d.*

The Chairman said, the directors having resolved to make another call, he ought to say the works were making *great* progress. They had decided to fence in the harbour, to protect it from the sea, and therefore additional funds were required. The report being put, was carried unanimously.

DUNSTABLE.

MARCH 3.—HALF-YEARLY MEETING.—Mr. G. Stephenson in the chair.

The report was read by Mr. Long, the Secretary, which stated that it had been agreed that the line should be constructed by the London and Birmingham, who were to be paid by this company for its cost, on condition that it did not exceed the amount of this company's capital, and if there should be any excess, that it should be paid by the London and Birmingham out of their own funds. The London and Birmingham had determined to defer the commencement of the works on the Dunstable line, with the exception of that part situate between Leighton and the Grand Junction Canal, for the present, as the directors were of opinion that it was unsafe to do so until the result of the bills pending in Parliament, with respect to the construction of the Cambridge and Oxford, and Watford, Luton, and St. Alban's lines was known; these lines, if adopted, being calculated to influence materially the prosperity of the present undertaking. The accounts of the company showed a balance in favour of the company of 17,800*l.*

The Chairman stated to the proprietors, that the dividend was 4 per cent. per annum.

FURNESS.

FEB. 28.—HALF-YEARLY MEETING.—The report was read, which stated that the railway will, in all probability, be opened on the 1st of May. A supply of locomotive engines and carriages has been ordered, temporary accommodations for passengers and goods are being prepared, communications have been opened with the different iron ore merchants in Furness, and with Mr. Abel Smith, with a view to the mutual accommodation of the railway

company and the pier at Piel. The Whitehaven and Furness Junction Extension and the Furness and Windermere bills before Parliament will, if carried out, contribute materially to augment the traffic on the line. The directors, as authorized at the general meeting in August last, have borrowed on mortgage, at the rate of 4 per cent., part of the loan of 25,000*l.* raisable under the Act of Incorporation, and are preparing to borrow the remainder. From the 2nd of August to the 12th inst. the receipts have been 52,682*l.* 0*s.* 10*d.*; the payments, 51,719*l.* 18*s.* 10*d.*; the balance is 962*l.* 2*s.* The report and accounts were unanimously approved of.

GLASGOW, PAISLEY, KILMARNOCK, AND Ayr.

FEB. 26.—EIGHTEENTH HALF-YEARLY MEETING.—Mr. John McCall in the chair.

The report recommended a dividend at the rate of 7 per cent. per annum for the last six months.

Mr. J. Ross, jun., moved an amendment to the effect, that the dividend be 7½ per cent. per annum, or 3½ on the half-year, and Mr. Smith supported the proposal.

After some discussion, the report of the directors was carried by a majority of 33 to 25.

SOUTHAMPTON AND DORCHESTER.

FEB. 28.—HALF-YEARLY MEETING.—Lord de Mauley in the chair.

Capt. Griffith, the Secretary, read the report and abstract of accounts. The time of opening the line, and its course through the New Forest, which appeared to depend on the Commissioners of Woods and Forests, who had opposed the original intended line, were the subjects of slight conversation. The report was agreed to.

A resolution was next read, passed by the South-Western Board, appointing as directors (that company having the power to nominate one-third of the directors) Messrs. W. J. Chaplin, T. Smith, J. B. Boothby, and M. Uzielli. The nomination was accepted.

Capt. Garland then proposed, and Mr. Lambert seconded, the re-election, as directors, of Lord de Mauley, Mr. Mills, Capt. Garland, Rev. W. Jones, Messrs. Lambert, Bryant, Brouncher, and the appointment of Mr. Bond in the room of one who had retired.

Mr. Chaplin (chairman of the South-Western Board) moved an amendment. He stated at length the differences existing between the two companies, contending that the Dorchester Company had treated the South-Western anything but fairly, and had evinced too great a leaning to the Great Western. He also objected to the selection of Mr. Brunel by this company, he being the active and intelligent organ of the Great Western, and of course bound up in their success. An infusion of new blood was necessary in the directory, and under all the circumstances he had explained, painful as the task was, he would move as an amendment the following list:—Lord de Mauley, Messrs. Mills, Lambert, and Brouncher; and in the place of the other four, Sir John Guest, Col. Henderson, Capt. Breton, and Mr. Martin Maddison.

The amendment was seconded by Mr. Wire, and a very warm discussion ensued, which terminated by an arrangement that the names should be proposed separately.

The Rev. W. Jones, previous to the votes being taken, delivered a protest against the reception of votes in respect of any shares whatsoever, which now stand in the names of any parties, and which have been purchased by, or held in trust, or as agents for, or subject to the direction or control of the London and South-Western. He believed that such votes were illegal, and in contravention of the agreement between this company and the London and South-Western Railway Company, and also of the clauses of the Com-

panies Clauses Consolidation Act, 1845. And he protested against any parties who may be chosen directors of this company by such votes, or by a majority caused by such votes, acting as a director.

The names were then severally proposed, when those comprised in the list of Mr. Chaplin were all elected, on which Mr. Castleman demanded a poll, which was immediately taken.

The poll having closed, the following was the result; Lord de Mauley, 1,462; Mr. Mills, 1,462; Mr. Brouncher, 1,462; Mr. Lambert, 1,462; Col. Henderson, 1,266; Mr. Maddison, 1,266; Capt. Breton, 1,266; Sir John Guest, 1,266; Mr. Garland, 196; Mr. Jones, 196; Mr. Bryant, 196; Mr. Bond, 196.

The Chairman therefore declared the eight gentlemen having the largest number of votes duly elected as directors of the company.

Mr. Castleman then resigned his situation as solicitor to the company. He believed the election to be illegal, and therefore could not advise with a board so elected.

SOUTH DEVON.

MARCH 3.—HALF-YEARLY MEETING, by adjournment from the 28th ult.—Mr. Gill, M.P., in the chair.

The chairman, said that since the last meeting additional calls had been made, bringing the paid-up capital to 35*l.* per share, the total amount of capital being 70,000*l.* They had advertised some time back for loans, at an interest of 4 per cent.; but in consequence of the madness of speculation, money was difficult to be obtained. A further call was made, and he was happy to say that, notwithstanding its largeness, it was responded to, in a manner which showed confidence in the undertaking. It would be, perhaps, satisfactory for them to learn that of the 700,000*l.* capital, deposits to the amount of 90,000*l.* had been paid to the Accountant-General on account of schemes which they had resolved to support. With regard to the lines which they had authorized the company to assist, he had little further to say than that the Ashburton, Newton, and South Devon Junction, and the Exeter and Topsham, had passed the Standing Orders Committee, and had been read a second time. They had recently issued an advertisement for loans at a higher rate of interest, on debentures at 5 per cent., and they had received many applications; money was flowing in freely, and he doubted not that more would follow, so as to supersede the necessity of any further call. With regard to the state of their affairs, Mr. Brunel had prepared a report, which would be read by that gentleman. The line was already formed from Exeter to Newton, and with the exception of the atmospheric portion, might be considered as almost completed. Mr. Gill proceeded to say that, in reference to the reports of the failure of the atmospheric principle on this line, the directors expressed their most unqualified confidence that the undertaking would succeed in every way they could desire. He had now the pleasure to inform them that sixteen miles of railway were completed, that sixteen miles of pipes were prepared for laying, and that four miles of pipes had actually been laid upon the road. They intended to lay the atmospheric pipes at the rate of one mile weekly. They might not be able to open the atmospheric portion of it for some months; but they had thought it right to open the line to Teignmouth forthwith, working it with a locomotive, a circumstance which would not impede the progress of the atmospheric; and very shortly they hoped to be able to open the line as far as Kingsteignton. The Chairman explained that four directors were to be elected in place of as many withdrawing, and two auditors.

The Engineer, in explanation of the delay on the works that had occurred, stated that they were unfortunate the first winter, when there were strong easterly winds. Then no work could be done, and they lost the first six months. With that exception they had been fortunate in the course of

their work, and at the present moment the work was in a very satisfactory condition. With regard to the observations respecting the atmospheric system on the Croydon, he would remark that he had followed the works on that line with anxiety—with the anxiety at least which led them to examine what was to be done. Nothing had occurred at Croydon to diminish the confidence of those who thought that it was a system easily accomplished, and that its mechanical difficulties might be overcome. The Croydon Railway was not yet laid entirely with the atmospheric apparatus. The directors of that company determined to commence only with the portion of the line which is distinct from the other railways, and up to the present moment the directors had not laid the pipes to London. From Forest Hill to Croydon, a distance of about five miles, has been opened to the public. From New Cross to London they were also running trains, but not for the public. On the other part the result is perfectly satisfactory, as showing the power and effect of the system, and the regularity with which it can work; and so far from the experiments throwing any doubt on the capabilities of the system, it shows most completely that everything can be carried out. There were two sections which also showed what could be done on a long line. There are disadvantages connected with the working of the atmospheric system on a short line, but a line with four or five sections would work better than one with only two sections. On the Croydon line a very satisfactory result had been obtained—namely, that although the engines were placed at only two miles apart, yet they would work the whole distance with the use of only one engine. Therefore, when the line consisted of several sections, they might dispense, if necessary, with all but one engine at each end. The results had been perfectly satisfactory to his mind. They all knew that on the introduction of a new system there were a great number of persons who were interested in discovering defects, which led to the more early improvement of an invention than would otherwise occur.

The retiring directors were re-elected.

HUDDERSFIELD AND MANCHESTER.

FEB. 28.—HALF-YEARLY MEETING—Mr. Carbutt, of Leeds, in the chair.

Mr. W. Gilmer read the Directors' Report. It stated that all difficulties in the purchase of land had been removed—that a timely order had been given for locomotives; and that the rails and chairs were contracted for, and in course of delivery. The receipts in the railway department to December had been 268,976*l.* 10*s.* 1*d.* The expenditure, 208,517*l.* 12*s.* 2*d.* In the canal department the receipts were 3,207*l.* 7*s.* 4½*d.* The expenses, 1,998*l.* 1*s.* 5½*d.* The debits to 31st December were stated at 17,491*l.* 10*s.* 11½*d.* The credits the same sum; including a balance in hand of 10,141*l.* 15*s.* 8*d.*, and not including 31,230*l.* "permanent property which should be kept."

The report was adopted. The business for the meeting now was finally to settle the amalgamation with the Manchester and Sheffield.

Mr. T. F. Bennett would oppose the proposed amalgamation. He believed that before they went to the House of Lords they must have a majority of three-fifths of the shareholders, and he should therefore wish one question to be answered—when speaking of a majority of that meeting, did the Board mean a majority of three-fifths?

The Chairman replied that he should require a majority of three-fifths of the present meeting, and if there was not such a majority, the directors pledged themselves to abandon the proposed amalgamation. In reference to the capital required for the formation of the proposed lines, the Chairman said that the Great Grimsby and Sheffield line was fifty-nine miles in length, and would require a capital of 600,000*l.* for a single line of rails, but a decision had since been come to, to lay down a double line of rails, and an additional capital of 230,000*l.* would therefore be required, making a total of 830,000*l.*;

there was a deviation at Brigg of four miles, requiring a capital of 60,000*l.*; the line to Lincoln would cost 265,000*l.*; the line to Bolton and Newark, 300,000*l.*; then there were the Grimsby Docks, the expense of which was calculated at 420,000*l.*, and the purchase of the Humber ferries 40,000*l.*; then there was the Sheffield and Lincoln line, of thirty-six miles, costing 550,000*l.*, and the extension of their own company, costing 250,000*l.* The whole of the proposed lines were 165½ miles in length, and the capital required 2,718,000*l.*; the average cost of the lines being after the rate of 14,000*l.* per mile. He now came to the Sheffield and Manchester line; 1,600,000*l.* had already been expended, at a cost of 30,000*l.* per mile. The several branches applied for by that company were—the Barnsley branch, capital 150,000*l.*, the Whalley Bridge branch, 400,000*l.*; the Glossop branch, 15,000*l.*; and the Sheffield Junction (or an enlargement of the present station), 20,000*l.* Making a total capital of 5,250,000*l.* In addition to this there was the Nottingham and Newark branch; but as it was not likely they would pass the Standing Orders, he had not taken them into the account. There were two other lines towards which that company intended to subscribe the sum of 310,000*l.*, making a grand total of 5,560,000*l.* To this they had to bring a capital of 850,000*l.*, and if they had obtained their branches a further capital of 688,000*l.* The Peak forest, Macclesfield, and Ashton canal had been leased at a rental of 28,400*l.* The total capital of the amalgamated companies would therefore amount to 7,100,000*l.* And now came the desirability of the amalgamation, which the Chairman with much warmth urged upon the grounds of gratitude, and honour, and good faith. Suppose they refused to amalgamate; they would then be separated from any other company by a distance of seven miles; they would be placed in the same position as they would be supposing they wanted to get to Leeds without the Leeds and Dewsbury. Who so likely to get traffic for them in Manchester as the Sheffield company, who had better station accommodation than any other company in Manchester? There might be minor defects in this great scheme, but as a whole a better one could not have been proposed. Look at the proposed cost—45,000*l.* per mile for their own, 30,000*l.* for the Sheffield schemes, and 14,000*l.* per mile for the others with which they proposed to amalgamate. All those different lines he had named ought to be placed under one management. The Chairman then formally proposed, “That it be a recommendation to the directors to proceed with the bill before Parliament for the amalgamation of this company with the Sheffield, Ashton-under-Lyne, and Manchester Railway Company and its confederates.”

Mr. W. L. Brook seconded the motion.

Mr. Bennett in proposing an amendment—“That the proposed amalgamation ought not to be further proceeded with, but that the independence of this company be preserved,”—said that the proposed amalgamation was quite unnecessary. He had no doubt the directors had the interests of the shareholders at heart, but somehow they had the misfortune never to look at them except through Sheffield spectacles.

Mr. Heaps, of Huddersfield, seconded the amendment.

The motion and amendment was then put, and the show of hands about equal. This of course decided the fate of the proposed amalgamation. A poll was however demanded by those in favour of the amalgamation, and it was at once proceeded with.

The numbers for and against the amalgamation were announced to be as follows:—

AGAINST.			FOR.		
	Shares.	Votes.		Shares.	Votes.
Present . . .	4,655	1,526	Present . . .	2,785	1,334
Proxies . . .	6,021	2,562	Proxies . . .	5,100	2,141
	<hr/>	<hr/>		<hr/>	<hr/>
	10,676	4,088		7,885	3,475

Thus leaving a majority against the amalgamation of 2,791 shares or 613 votes.

Upon the Chairman announcing the majority, it was received with loud cheering. The names of the new directors were then read over, and the Chairman exhorted the meeting to let all feelings of animosity cease from that moment.

HAYLE.

The meeting of this company, which was to have been held on the 3rd ult., was adjourned, in consequence of the West Cornwall petition being before the Standing Orders Committee.

BRISTOL AND EXETER.

MARCH 4.—HALF-YEARLY MEETING—Mr. J. Gibbs in the chair.

Mr. Badham, the secretary, read the report, which set forth that the amount of rent and share of toll stated by the Great Western Railway Company to be due to this company for the half-year ending on the 13th of December last, is as follows, viz. :—

Fixed rent of the line from Bristol to Exeter, from the 14th of June to the 13th of December, 1845, at 71,957 <i>l.</i> a year.	£35,978 10 0
Share of toll on 305,599 passengers, conveyed 9,633,927 miles, at $\frac{1}{4}$ <i>d.</i> per mile	10,035 6 10
On merchandise, 59,174 tons 7 cwt. 3 qrs. 10 lbs., equal to one ton conveyed 2,423,766 miles, at $\frac{1}{4}$ <i>d.</i> per ton per mile.	2,524 15 2

The gross earnings on the line during the year 1845, were very nearly 190,000*l.* After deducting the balance of income tax, it will be seen that the last half-year's revenue does not justify any increase of dividend; and your directors therefore recommend to you to declare the usual dividend of 1*l.* 8*s.* per share on the 15,005 whole shares, free of income tax, for the half-year ending the 6th of April next. Interest on the deposit of 2*l.* per third share, to the date of the second call (the 15th of January), will be remitted to the proprietors who stood registered for these shares at the closing of the books on the 21st of February. Under the authority of your resolution of the 28th of August last, measures have been taken for obtaining, in the present session of Parliament, an Act for constructing a branch from Yeovil to Crewkerne. The cost of this branch will be provided for out of the capital authorized by the Act of last session. Agreements for the purchase of land for the branches to Clevedon, Tiverton and Yeovil, are in active progress, and in a short time contracts for some of the works will be advertised. The construction of a branch to the city of Wells has been postponed. A draft of the North Devon bill, as well as that for the branch to Crewkerne, will be submitted to a general special meeting. The bill for the Cornwall Railway is fully expected to pass into a law in the present session. The alterations recommended by the engineer having called for an increase of capital, the directors could not hesitate to agree to subscribe for the proportion of the new shares in that company, and a resolution will accordingly be submitted to confirm the subscription for 1,500 half-shares, at 25*s.* each. The instalments paid on 4,000 shares in that undertaking, including a call of 10*s.* per share on the 25th of January last, amount to 140,000*l.* The Exeter and Crediton Railway, under lease to this company, will be opened within the present year. The 30*s.* per share remaining to be called for upon the 100*s.* shares being reserved for paying off the loan notes as they successively fall due, and a portion of these being payable on the 21st of the present month, a call has been made for 5*s.* per share, payable on the 18th. On the subject of the rejected provisional agreement for a perpetual lease of your line to the Great Western Company at a rent charge, the directors refer to their special report of the 18th of February.

Resolutions adopting the report declaring a division of 1*l*. 8*s*. per share for the last half-year, and the raising of capital for the branch lines, as authorized by the Act of Parliament, were then passed. A resolution was then moved, authorizing the directors to subscribe for 15,000 half shares of 25*l*. each in the Cornwall Railway, and passed.

EXETER AND CREDITON.

FEB. 28.—HALF-YEARLY MEETING.—Mr. J. W. Buller, of Downes, in the chair.

The business of the meeting was limited to the hearing and adopting the report. It stated that five-sixths of the land had been obtained at fair prices. The contracts were now in active operation, and the rails ready for delivery. A 5*l*. call was payable on the 31st of March, or in two instalments of 2*l*. 10*s*. on the 31st of March and the 1st of May, and a lease of the line to the Bristol and Exeter was now with that company for approval. The finances showed a balance in hand of 2,614*l*. at the present time. The receipts to the 31st of December, had been 11,934*l*. 5*s* 11*d*., the payments 4,155*l*. 12*s*. 11*d*. The engineer reported that he thought the line would be opened by the next half-yearly meeting.

NEWRY AND ENNISKILLEN.

FEB. 27.—SECOND HALF-YEARLY MEETING.—Viscount Newry, M.P., in the chair.

Mr. Bryden read the report, which stated that the directors have appointed Mr. Godwin, engineer of the Ulster Railway Company, their resident engineer. The final surveys of the whole line have been made. They have a contract, within the original estimate, for the section commencing at Newry; and will soon be able to contract for a section commencing at or near Armagh to join it. A call of 2*l*. per share is in the course of payment. It is expected that this railway will become a great trunk line for the North-west and Midland Counties, and will have the advantage, for four-fifths of its length, of the traffic to Belfast. The Enniskillen and Sligo Railway, and the Newry, Armagh, and Londonderry Junction Railway, now before Parliament, if carried out, will greatly increase its traffic. The receipts on deposits of 2*l*. 10*s*. per share are 45,000*l*.; expenditure, 27,291*l*. 18*s*. 1*d*.; 600 shares held by the trustees for the company are 1,500*l*.; and there is of cash at interest in the banker's hands, 16,288*l*. 1*s*. 11*d*. The report was adopted. 1,000*l*. per annum were voted to the directors; 300*l*. per annum to the secretary, and 40*l*. per annum to the auditors. It was stated to the meeting that there is to be a general station at Armagh for all lines passing through or terminating there.

GREAT LEINSTER AND MUNSTER.

MARCH 6.—HALF-YEARLY MEETING.—Mr. Bainbridge in the chair.

Mr. Harte, the secretary, read the report. It stated that eight miles of land had been purchased, and that an amalgamation upon equal terms had been effected with the Wexford and Carlow, as also with the Great Southern and Western, whereby that company agrees to take one-sixth of the capital, on condition of their being allowed to place three of their directors on the Board.

The name of the company is to be changed to that of the Irish South-Eastern. The accounts showed a balance of 11,026*l*.

The Chairman said that eight miles of the line had been commenced, and that a contract for 18,000*l*. had been signed and sealed.

The Chairman stated that out of 6,000*l*. only 3,000*l*. had been paid upon calls, and hoped the deficiency would be made up. The Great Western and Northern had taken 1,000 shares in the company, and the line would

have all the benefit of their support. The extension to Clonmel was estimated by Sir John Macneill at 300,000*l*.

MANCHESTER AND BIRMINGHAM.

MARCH 6.—HALF-YEARLY MEETING.—Mr. J. Westhead in the chair.

The Chairman said that the contract for the branch to connect Ashton with Stockport had been let to an experienced and enterprising contractor, and the works would be commenced and disposed of with as much despatch as possible. Some difficulties had been thrown in the way of the South Junction and Altrincham line, owing to the surveyors being so much engaged with other business as to prevent their attending to this undertaking for some time. That difficulty had now, however, been removed, and the works would be proceeded with with all convenient despatch. These works had rendered it necessary for them to depart from their former arrangement with respect to calls, and they now proposed to make some of them at no distant period. He next called attention to the lines in which the company was more or less interested. There was, first, the Manchester and Buxton. It had passed the Standing Orders, and there was every prospect of its getting through Parliament without opposition. The Shropshire Union had also passed the ordeal of going through the Standing Orders; and as an arrangement had been come to with the Aberystwith and Crewe, by which the latter company agreed to abandon that portion of their scheme which embraced the district between Crewe and Newton, it is not likely to meet with much more opposition. Parties deeply interested in the district beyond Newton and towards Milford Haven had put themselves in a position to form a company to connect Manchester with that port, making use of the Manchester and Birmingham line between Manchester and Crewe; and at no distant period they might expect to see a scheme of this sort brought out. All their branches had passed Standing Orders; but he regretted that he could not add that the Direct Manchester had failed; numerous allegations of a serious nature had, however, been made out against it, and he had little doubt but that it would be stopped by the upstairs committee. In his opinion it was an absurd and ridiculous scheme. He held in his hand a draft of the bill for the amalgamation of the three companies, namely:—the London and Birmingham, the Grand Junction and Manchester and Birmingham; and it was strictly in accordance with the agreement entered into last year. As a proof of the value of this great amalgamation, he might mention that it had enabled them to make a considerable reduction in their fares for passengers and rates on goods. The result had been that no fewer than 2,740 more passengers had passed over the line than in the past year, while the goods traffic had exceeded that of last year by 71,000 tons. The former had been conveyed at a cost of 8,226*l*., and the latter at 4,621*l*., or a penny and a tenth per mile per passenger, and a halfpenny per mile per ton on goods. It was gratifying to know that this increase of traffic had required little or no additional expenditure. He concluded by taking a rapid glance at the advantages which the railway system had conferred on the country, and suggested that a similar testimonial to that presented to Mr. G. Hudson ought to be offered to Mr. G. Stephenson.

The Chairman stated that on all the monies called up to carry out the branches and extension, interest at the rate of 8 per cent. would be allowed until the stock became entitled to participate in the dividends.

SOUTHAMPTON, MANCHESTER, AND OXFORD.

FEB. 28.—GENERAL MEETING.—Mr. Muntz, M.P., in the chair.

The Chairman stated that the Directors could have wished to call the shareholders and scripholders together, to decide upon winding up the concern, but unfortunately they had been placed in difficult circumstances, in

consequence of Chancery suits having been instituted against the directors. The directors had therefore called the present meeting together, to lay the whole case before the shareholders. The report stated, that, before the letters of allotment were prepared, the solicitor (Mr. Parsons) entered into a negotiation with Mr. Bethell, the solicitor to the Oxford, Southampton, Gosport and Portsmouth, for an amalgamation. The proposed amalgamation was conditionally effected; but early in January last, the committee, in consequence of certain unfavourable reports which reached them, instructed their engineer to examine the plans and sections deposited by Mr. Bethell's company, and report thereon. That report convinced the committee that any application to Parliament, in conjunction with Mr. Bethell's company, could, if opposed on the Standing Orders, lead only to great expense and certain disappointment, and the amalgamation was therefore declared to be at an end. The committee then effected an amalgamation with the Oxford, Newbury, Andover, Manchester, and Southampton Junction. The committee, however, now expressed their regret that that company were unable to contribute their proportion to the joint fund of the amalgamated companies, and that in consequence it had been found impossible to proceed to Parliament in the present session. The committee then mentioned that various suits had been commenced against them, to which Mr. Parsons was attorney, and stated they were of opinion that these suits, if carried on, would prove very detrimental to the real interests of the subscribers, as they (the committee) were advised they could not with safety part with the funds in their hands while these suits should be pending. The suit in Chancery, instituted by Messrs. Doyle and Scrivener, prevented the committee from proposing any resolution, and should they succeed, all the accounts of the company will have to be taken into the Court of Chancery. The number of shares allotted up to the 26th ult., 23,440; reserved 21,560. Of the former, but 19,595 shares, at 2*l.* 2*s.* each, were taken up, realizing a sum of 41,149*l.* 10*s.* The expenditure amounted to 10,712*l.* 9*s.* 7*d.*, leaving a balance of 31,437*l.* 0*s.* 5*d.* A personal discussion ensued respecting the conduct of Mr. Parsons, the late solicitor of the company, but it involved only one point of any interest to the public, viz., that some of the members of the provisional committee had spent a portion of the funds for the purpose of "rigging" the market. It appeared that Mr. Muntz, Mr. Spooner, and the majority of the provisional committee had, from the moment they discovered the transaction, expressed themselves against its propriety, and that the money had been refunded. The meeting was adjourned; the great majority deeming it right that the directors should have an opportunity of answering the allegations made against them in the Chancery suits.

LONDON AND BIRMINGHAM.

Mr. G. C. GLYN, the Chairman, proposed the confirmation of the conditional agreement for the sale and transfer of the Trent Valley Continuation line. He reminded the meeting of the agreement made last year, that this company should become coproprietors of the Trent Valley line with the Manchester and Birmingham and the Grand Junction. These three companies hold the greatest shares in the Trent Valley Company, which only hold three-ninths of the entire number. It was at first judged best to become the lessees, but in the preparation of the deeds and leases there was found to be so much technical difficulty, that it was deemed better, on further consideration, to purchase the interest of the Trent Valley Company at once. The terms on which this purchase had been agreed to were 28*l.* per share; 23*l.* for the premium to which they had risen, and 5*l.* for the amount paid; and considering the interests and circumstances of each company, this was a fair bargain. Although the Manchester and Birmingham and the Grand Junction Companies were joint purchasers with the London and Birmingham,

yet the whole arrangements as to the works, the capital, and all details, were to be in the hands of the London and Birmingham, that being considered best for the general interests. The resolution was then received and unanimously agreed to. The 15th of April next is the day settled for the payment of the purchase money, which amounted to 584,000*l.*, but they had the option of deferring payment till the 15th of July, paying 5 per cent. interest for the delay.

LONDON AND CROYDON.

MARCH 10.—TWENTY-FIRST HALF-YEARLY MEETING.—Mr. W. A. Wilkinson in the chair.

He congratulated the meeting on the large increase of traffic, accompanied as it was with an additional expenditure; for although he did not undervalue economy, yet he considered the prior attention given to obtaining the extra traffic as well bestowed. The dividend was very little more than last year—and that difference arose principally from the profit on the Portsmouth shares, and did not belong to the working of the railway; still there was no doubt this would be increased as the expenses were gradually reduced, which would be a consequence of the amalgamation with the Brighton. There was a proposition on foot which he thought would effect a still greater augmentation of the traffic. He had the opinion of one of the members of the society for the improvement of the dwellings of the poor, that the object they had in view was entirely useless as applied to London; that the dwellings of the poor should be within a few miles of town, which arrangement could only be effected by a railway that would bring them to their work in the same space of time as, under existing circumstances, they occupied in walking. It had been proposed to the present company to carry these persons at the cheapest rate possible; in fact, to carry them at the same rate as goods. If this proposition could be brought to bear, the line would be eminently useful, and there would be additional benefit to the company, because, supposing large villages were built, it must bring a commensurate increase of traffic of every description; in fact, the line would become a street from one place to another. The Chairman explained, with regard to the small divisible profit, that the chief cause was the large expense involved in the maintenance of way, because the line was originally constructed with light rails, while every year they had had fresh engines with an increase of power; and the directors had postponed the relaying of the line until they had got their own traffic off it, at which time a great economy would doubtless be effected. He had nothing more to say except with regard to the atmospheric system, with respect to which he could safely tell them, that although they had had some drawbacks, nothing had taken place to shake their faith in the slightest degree as to its ultimate results, and the benefits it was likely to produce. He thought the system was fraught with benefits to the country at large; he was satisfied that it would in the end, although that end must be necessarily distant, supersede the present mode of traction, for the reason that the public were continually requiring advantages which could only be supplied by some system of the kind. He was compelled to tell them of a mistake which the directors could not but feel they had fallen into. They at first required that their engineer, Mr. Samuda, should be answerable for the successful construction of the line, and thought he could well accomplish it; but believing afterwards that he had not such means at his command as they were likely to find in other hands, they determined to make Mr. Samuda answerable only for the atmospheric part of the system, and to have from engine makers the best engines that could be obtained.

They accordingly went to Messrs. Maudslay and Field, who had furnished them with engines, no doubt excellent for other purposes, but certainly not calculated for the atmospheric system. The crank axles of six of the engines had broken, and all parts in which there was any excessive strain had

been injured. They had attempted an improvement in the air valves, but the result had been the reverse; and they had therefore put the whole under the direction of Mr. Samuda, for the purpose of remedying the defects. It had been satisfactorily proved that by the atmospheric system a speed of 70 miles an hour could be gained without any extra expense; and if they had a double line instead of a single one—that is, if they had not to wait for them to return—they could send trains every five minutes during the day. He had never heard that it was to the convenience of the public to carry people in masses; such was not the custom in coaches, or any other kind of conveyance—in fact, the public convenience was secured by quite a contrary proceeding. Even in the case of troops this fact would apply. With respect to a greater system of economy, they were not in a position, as yet, to show how this could be effected; but, nevertheless, he felt assured that the atmospheric was by far the cheapest system. Not being able to show them that they had carried certain people to certain places, and burned so much fuel, he could only at present refer generally to those matters, and tell them what had occurred since they last met. He would mention the Report of the Commission on the broad and narrow gauge, and accordingly read various extracts from the Report, from which favourable deductions could be made, particularly with reference to the danger of excessive speed on either gauge, such danger being impossible with the atmospheric system. He pointed out also the fact, that with this system excessive speed was not accompanied by an increase of cost, as was the case with the other. Neither would there be any of the usual difficulty in the arrangement of trains, to prevent the fast trains interfering with the slow, &c. After reading an extract from Mr. Brunel's speech at the South Devon meeting at Plymouth last week, in favour of the system, the chairman concluded by hoping that nothing he had said would lead to the impression that there was any want of power in the same: such was by no means the case. The errors had arisen from the absence of an air-pump of the required power, in order to prevent leakage, and when the necessary remedies were achieved he believed there would be nothing to prevent the perfect success of the system.

After some discussion on subjects relating to the management of the line, the Report was adopted unanimously.

WEST LONDON.

MARCH 11.—HALF-YEARLY MEETING.—Mr. H. H. Grounds in the chair.

He stated his great satisfaction in the progress of the company's arrangements, and it was only owing to unforeseen circumstances that they had not come to a final wind up. The lease of the whole line to the London and Birmingham and Great Western had already been executed, and a counterpart of it lay on the table for their inspection. The directors had delayed calling the meeting until the last day allowed by Parliament, in order to obtain the award of arbitration in the shares. It was not then ready, and a special meeting would be called to consider the matter. A bill had been introduced by the London and Birmingham and the Great Western conjointly, for carrying the line over the Great Western, and also for extending it through Knightsbridge to the Thames; and, as soon as this extension should be constructed, there was every reason to expect a considerable traffic from those companies. An outlay would, however, be required in the summer for permanent repairs; and, as soon as the necessary sum was ascertained, a general meeting would be convened to consider the subject.

TRENT VALLEY.

MARCH 9.—HALF-YEARLY AND SPECIAL MEETING.—Mr. Edmund Peel, M. P., in the chair.

Mr. Walker, the secretary, read the report, which set forth the directors' satisfaction with the progress of the works and the financial position. It

congratulated the shareholders that in little more than six months from the passing of the Act, the land required for forty-two miles of the railway had been purchased, and the land for the remaining eight miles would shortly be in possession. From the ample stock of materials accumulated upon the line by the contractors, the plentiful supply of land provided, and the fact that all the heaviest portions of the earthwork are now being rapidly proceeded with, the directors anticipate that great progress will be made during the spring and ensuing summer. The manner in which the first call has been met testifies that so long as the shares remain in the hands of such a body of capitalists as their present proprietors, no general monetary embarrassments would prevent the most confident dependance upon the regular and certain payment of the calls. The financial Report showed a total receipt since the last meeting of proprietors of 179,097*l.*, a total disbursement of 119,659*l.*, and a balance in hand to the 31st January of 135,235*l.* The terms entered into with the London and Birmingham to purchase the interest held by the general body of proprietors were at 23*l.* premium (or 28*l.*) per share. Payment to be made in cash, on the 15th of April next, or, at the option of the London and Birmingham, payment to be deferred, on the allowance of interest at 5 per cent., until the 15th of July next. In conclusion, the proprietors were congratulated on the opportunity now open for that intimate union with the great companies (now amalgamated) which the labours of those who advocated a shortened route from the great manufacturing districts to the metropolis deserved to have finally effected. The Engineer's Report stated that the earthwork throughout the whole line may be said to be in full operation, and at many points considerable progress is made. About 2,600 men are now on the line, and about 350,000 cubic yards of earthwork have been executed.

The Chairman proposed the adoption of the Report, which was passed unanimously.

DUBLIN AND KINGSTOWN.

MARCH 10.—Special meeting to approve the draft of a bill intended to be presented to Parliament, in the present session, for extending the line of the Dublin and Kingstown to the Bridge of Bray, together with an agreement for leasing to the Waterford, Wexford, Wicklow, and Dublin Railway, the Dublin and Kingstown, and transferring to them the intended extension to Bray. Mr. G. Pim in the chair.

Mr. Bergin, the secretary, read the following abstract of the deed of agreement proposed to be entered into with the Waterford, Wexford, Wicklow, and Dublin Company:—"That if the Waterford, Wexford, Wicklow, and Dublin Company shall be incorporated before the 1st January, 1848, the Dublin and Kingstown will lease to them the line from Dublin to Dalkey for thirty-five years at a fixed annual rent of 34,000*l.*, and a further rent for each year, equal to a moiety of the gross receipts of the railway over and above 55,000*l.* That, at the expiration of the lease a renewal thereof shall be granted for a like period, the terms of such renewal to be settled (if necessary by arbitration) at least five years before the expiration of such lease. That if the Waterford, Wexford, Wicklow, and Dublin shall, at their own expense, lay down a double line of atmospheric apparatus between Dublin and Kingstown, then the additional rent above 34,000*l.* is to be a moiety of all gross receipts over and above 58,000*l.*, instead of 55,000*l.*, until such gross receipts shall amount to 67,500*l.*, when the said additional rent shall be the moiety of all excess of gross receipts above 55,000*l.* as before. That, if by reason of Parliament being dissolved, the Waterford, Wexford, Wicklow, and Dublin are prevented obtaining their Act of incorporation within the present session of Parliament, then the time for the incorporation of the said company with reference to this agreement is to be extended to the 1st of January, 1849. That in the event of the Dublin and Kingstown obtaining

their Act this session, and the Waterford, Wexford, Wicklow, and Dublin failing to obtain theirs, the works of the extension to Bray to be proceeded with by the former company; and that when the Waterford, Wexford, Wicklow, and Dublin shall have obtained their Act within the period aforesaid, they are to repay to the Dublin and Kingstown the expenses attending the obtaining of the Act, and all sums of money they may have expended for or on account of the extension, together with interest on such advances from their respective dates, at the rate of 5 per cent. per annum;" and Mr. David Mahony read the draft of the bill. The meeting confirmed both the bill and the agreement.

SOUTH-WESTERN.

MARCH 14.—Mr. Chaplin in the chair.

Resolutions in support of bills to the following effect were carried unanimously:—To authorize the company to complete arrangements with certain other companies; to extend the railway to the High Street, Southwark, and to the Thames near London Bridge, in the county of Surrey; to make the following branches—to Hampton Court Bridge (Surrey), to Epsom (Surrey), to Chertsey and Egham (Surrey), to Farnham (Surrey), and Alton (Hants); to make a railway, by Whitechurch and Andover, to Salisbury; to connect their Bishopstoke and Salisbury branch with the Wilts, Somerset, and Weymouth, near Salisbury; to make a railway from the Bishopstoke and Salisbury branch of the South-Western at Romsey, to the Southampton and Dorchester Railway at Redbridge (Hants); to make railways from Guildford to Chichester, and from Farnham to Portsmouth, with branches to Petersfield (Hants), and to Chichester Harbour (Sussex); to authorize the sale of the Guildford Junction, and enable the purchasers to maintain the same, and to make and maintain a railway therefrom to Godalming, and from the South-Western, at Farnham, to Portsmouth; for vesting the Portsmouth Extension of the Brighton and Chichester in the South-Western and the London and Brighton Companies; for making a railway from the South-Western, near Basingstoke, by Salisbury, to Sutton Bingham (Somerset), with a branch to Yeovil, to be called the London, Salisbury, and Yeovil Junction; for making railways from Exeter to Yeovil, and to West Wilton, to connect the same with Dorchester, with branches, to be called the Exeter, Yeovil, and Dorchester; for making a railway from Penzance and Falmouth to Exeter, to be called the Cornwall and Devon Central; for making branch railways from the Cornwall and Devon Central to Hayle, Lelant, St. Austell, and Bodmin.

SOUTH-EASTERN.

MARCH 18.—HALF-YEARLY AND SPECIAL MEETING.—Mr. J. M'Gregor in the chair.—He moved "That a dividend (less the income tax) of 17s. 6d. per share on the paid-up capital, and 6s. 7d. per share on the shares created on the 19th of March, 1844, and of 3s. 9d. per share on the shares created on the 7th day of February, 1844, be now declared, and be made payable on the 6th day of April, 1846," which was carried unanimously, and the Directors named in the Report elected.

The meeting was then made special, to approve the following bills now before Parliament:—

"To enable the South-Eastern to make railways from the south-west side of Waterloo Road, near to the York Road, in the parish of Lambeth, to the London and Greenwich: from the London and Greenwich, to join the South-Eastern, Canterbury, Ramsgate and Margate, in the parish of Chilham (Kent), with a diverging line to Dartford, and with branches to Sheerness and Faversham Creek: from the London and Greenwich to the South-Eastern, in the parish of Great Chart (Kent), with branches to Tunbridge and Riverhead, in the parish of Sevenoaks: from Tunbridge Wells, to join

the Rye and Ashford Extension of the Brighton, Lewes and Hastings : from the South-Eastern, near Reigate, to Dorking (Surrey) : from Maidstone, to join the Gravesend and Rochester, near Stroud and Rochester, and to alter the levels of part of the Maidstone Branch : from the South-Eastern, Canterbury, Ramsgate and Margate, near Canterbury, to Dover : from the South-Eastern, Canterbury, Ramsgate and Margate, at Chislehurst, to Margate : from the line of the South-Eastern, near Tandridge Lane, in the parish of Tandridge, to East Grinstead : from the town of Rye to the mouth of Rye Harbour : to construct an additional station at Ashford (Kent), and for other purposes ; and to authorize the purchase of the Gravesend and Rochester Canal by the South-Eastern."

Formal resolutions approving of such bills were carried unanimously.

GRAVESEND AND ROCHESTER.

MARCH 18.—Special Meeting to assent to the purchase of the railway and canal by the South-Eastern.—Mr. Moxon in the chair.

Mr. Prudence, solicitor to the company, at the Chairman's suggestion, read the draft of the bill, which contains clauses to the following effect, couched in the usual legal form :—"That the railway company is not to be liable to see to the application of the purchase money. That any actions commenced by or against the Gravesend and Rochester Company, shall not be abated or discontinued in consequence of the measure. That all expenses incurred in the application for the bill shall be paid by the South-Eastern Company. That all contracts entered into by the company shall remain in force."

A resolution approving this bill was carried.

The contract declares the purchase money to be 310,000*l.*, of which the South-Eastern Company has paid as a deposit 31,000*l.*, and adds, that in failure of the payment of the residue the agreement becomes void, and the deposit forfeited. It states that the Gravesend and Rochester shall be required to produce, within a month of the bills being obtained, a schedule of all mortgages, bonds, liabilities, &c., respecting which an arrangement will be entered into, by which the South-Eastern undertakes their payment under certain conditions. It is also provided that in case of the South-Eastern Company's wishing it, it shall be in their power to defer the payment of the residue above mentioned, on giving mortgages and bonds, and paying interest at a rate not less than 3½ per cent. per annum, payable every half-year, for five years ; it being understood that such bonds shall be divided into such amounts as the vendors shall direct, not being less than 50*l.*, and the vendors are not required to accept a larger amount in the whole, of bonds and mortgages, than 297,000*l.* In the event of the South-Eastern not getting the bill, it is intended that a certain part of the shareholders and creditors of the Gravesend and Rochester shall, on the requisition of the South-Eastern, transfer to them their shares and securities.

The Chairman moved a resolution approving of the contract, and the motion was then carried. Nine gentlemen were appointed as directors in lieu of the committee.

GLASGOW, PAISLEY, KILMARNOCK AND AYR.

MARCH 12.—SPECIAL MEETING.—Mr. J. Fleming in the chair.

The following bills were considered and approved of :—1. To enable the Glasgow, Paisley, Kilmarnock and Ayr to alter their line near Kilmarnock, and to make branches to Linwood, Swindloes and the Kilmarnock and Troon. 2. To authorize branches from Busby to Irvine, and from Irvine to the harbour thereof, with a subsidiary branch to Perceton Coal Works. 3. From near Blair to Strathaven, and to amend the Acts. 4. From Busby to Paisley, and to Drybridge, with subsidiary branches. 5. To make railways from near Cumnock, to the Caledonian near the crossing of the river

Sark, to be called the Glasgow, Dumfries and Carlisle, with branches. 6. From near the Manse of Newton to the town of Stranraer, with certain branches diverging therefrom, to be called the Glasgow and Belfast Union. 7. From Johnstone to Port Glasgow, to be called the Ayrshire, Bridge-of-Weir, and Port Glasgow Junction, with a branch to Kilbarchan. 8. To enable the Kilmarnock and Troon to let or lease their railway to the Glasgow, Paisley, Kilmarnock and Ayr, and to alter parts of the said Kilmarnock and Troon, and to construct certain branches in connexion therewith. 9. To make railways from Paisley to Barrhead, Crofthead, and Hurlet, with branches, to be called the Paisley, Barrhead, and Hurlet. 10. To make a railway from Hamilton to Strathaven, both in the county of Lanark, to be called the Hamilton and Strathaven. 11. To make a railway, to be called the West of Scotland Junction, with branches. The bill for branches to West Glenbuck and to the Caledonian Railway, near Lampits, had not been carried. The authority for the sale or lease of the Glasgow, Paisley, and Johnstone Canal, to the Glasgow, Paisley, Kilmarnock and Ayr, was also approved of.

MISCELLANEOUS.

COMMITTEE ON RAILWAYS UPON THE MOTION OF MR. MORRISON.

Mr. Chancellor of the Exchequer, Lord John Russell, Mr. Morrison, Mr. Hudson, Sir George Grey, Sir George Clerk, Mr. Wilson Patten, Mr. Warburton, Mr. Labouchere, Mr. Sidney Herbert, Mr. George A. Hamilton, Mr. Parker, Mr. Hume, Mr. Charles Russell, and Sir John Easthope.

THE STATE OF THE MONEY AND SHARE MARKETS FOR THE MONTH OF MARCH.

EVERY day's experience more and more confirms the view taken of the state of the money and share markets. In our last number we stated that, if railways were to be made without any limitation, an immense pressure would either fall on the commercial interests or the funds, for the surplus capital of the country was not sufficient without that pressure to carry on the projected railways.

We assume that the whole of the surplus capital is employed, and more than employed, in those railways which have already received the sanction of Parliament; if, therefore, in addition to these, Parliament sanctions new lines, which it will require another one hundred millions of capital to construct, the money must either be abstracted from the commercial community or the funds, and even then we know not where the *money* is to come from; in fact, twist and turn the matter as we will, to this conclusion must we come at last, that railways cannot progress faster than the accumulated savings of the country will allow.

In the mean time, the shareholders of those lines which are now in the course of construction have the mortification of seeing their property greatly depreciated; a cursory glance at our share list proves that this is the case, for almost all the scrip shares are at a discount; directly a call is made the value of the shares falls to the extent of that call. If such is the state of affairs at present, what will be the result if the Legislature recklessly add to the pressure by sanctioning, without limitation, new railway Acts?

We fear something very like a panic will ensue; in fact, the railways will stand still for want of capital to construct them.

The question, then, which remains to be solved, is this : are matters to be left to find their own level, or will the Legislature take the initiative ?

Will Parliament, seeing the true state of the money market, limit the amount of railway schemes to be passed, or will they leave matters to find their own level, on the principle, that if the public have been so foolish as to enter into a wild speculation the public must suffer for their folly ?

We are very much inclined to think, from present appearances, that the Legislature will adopt the latter course, and that the principle, which we admit to be sound in ordinary cases, of leaving capital perfectly unrestricted, will be the result of legislative deliberation ; if so, *wide spread misery will ensue* : and, under the circumstances of the case, we believe for the true interests of the public, and ultimately for the progress of the railway system itself, it would be far better for the Legislature to depart from its ordinary course, and come to a determination to postpone all railway legislation for a year, or until it be seen how those railways progress, and the calls be paid, on those lines which are *now* in the course of construction.

No one is more aware of the extreme danger of granting an unlimited amount of railway acts than Sir Robert Peel ; he knows full well, that with a *limited* currency and banking accommodation, it is impossible, without a total derangement of our monetary system, to find an *unlimited* amount of capital. His endeavour was, at the beginning of the session, to classify railways, and gradually to supply those districts which most required them as the resources of the country would permit, but the committee he appointed, carried away by the mania for railway construction, did not deem it necessary to place any limits on railways, but, on the contrary, gave every facility to their promoters, so far as the passing of railway acts is concerned ; and the consequence is that the public have become alarmed, and instead of the prospect of a railway act passing *improving* the value of its shares, nothing is looked forward to with so much dread by railway shareholders as the prospect of obtaining an act.

Now really this is a state of affairs perfectly alarming to those who, with ourselves, are most anxious for the progress of the railway system, and it becomes the more alarming when there seems a vast anxiety on the part of Parliament to limit the profits of railways and reduce the scale of fares to so low an ebb, that it will be impossible for any future railway to remunerate its shareholders. All we hope is, that Parliament will never sanction anything so pernicious in principle as binding down railway companies to charge fares which no experience has yet proved to be remunerative : the farce of sanctioning an unlimited amount of railways, on the one hand, and then, on the other, preventing their being made, by limiting the amount to be charged in the way of fares and tolls, is so truly absurd, that we cannot for a moment believe that it will ever be sanctioned.

It is unworthy of a statesman like Sir Robert Peel to get rid of an incubus by a side wind, rather than by meeting it boldly. If, therefore, Mr. Morrison succeeds in proving that a low rate of fares is most conducive to the public interest, we hope at the same time he will show that they are not incompatible *with railway construction*. This foolish meddling of Parliament with a question which is strictly one between railways and the public, will, if we mistake not, throw such a damper on railway construction, that we very much question if any *new* railway, independent of an old line, will ever be made.

Parliament surely are not so young in this world's ways as not to be aware that it is the success which has attended some of the established lines which has induced the public to come forward and make others which never *can* be very productive ; and if those in future to be made are to be rendered precarious, or worse than precarious, as a speculation, by screwing down the fares to a non-paying level, we have no hesitation in saying that the lines will never be made, and the public will be deprived of an

improved system of locomotion by a bungling and absurd system of legislation.

We have entered fully on this subject, and our views are fully borne out by the state of the Railway Market ever since Mr. Morrison's committee has been granted—all railway shares, without exception, have fallen considerably. The public are becoming alarmed—their confidence is shaken in railway property—the effect of granting Mr. Morrison his committee has been most pernicious.

So far as the established railways are concerned, the low price to which their shares have fallen is the result of panic, more than aught besides; they are selling now at prices which offer very high rates of interest as investments; and whatever Parliament may do, they can do nothing to invalidate the Acts under which the established lines have been granted, or the privileges secured to them under those Acts.

But the question is, what is to be done under the present circumstances of the monetary and railway world? It appears to us that if the railway shareholders are prudent they will themselves take the initiative, and petition Parliament to postpone all railway legislation for a year; or if they find that impracticable, to call meetings of their shareholders, and wind up their undertakings, and lessen as much as possible their liabilities. We have no doubt that this will be done, as we observe that a very influential meeting has been held at Glasgow, of which the following is an authentic account:—

"At Glasgow, and within the Merchants' Hall there, the 20th day of March, 1846, at one o'clock in the afternoon.—At a public meeting of the bankers, merchants, and other inhabitants of the city of Glasgow, called on a requisition made to the Lord Provost, Bailie Whitehead, in absence of the Lord Provost, on the motion of Sir James Campbell, was called to the chair.

"The following resolutions were moved, seconded, and unanimously agreed to:—

"It was moved by Hugh Cogan, Esq., and seconded by William Grahame, jun., Esq.:—'That this meeting views with alarm the progress of so many bills in Parliament this session for the extension of existing and the construction of new railways, involving, as these do, not only the locking up and withdrawal from ordinary circulation of a large amount of capital in deposits, but also threatening the prospective investment of a much larger amount of the capital of the country in one direction than can be so employed without seriously deranging the ordinary banking, commercial, and agricultural interests of the community; and that this alarm is heightened by the peculiar state of commercial affairs at the present moment—the scarcity of money, the derangement of labour, and the high price of material.'

"It was moved by J. G. Hamilton, Esq., and seconded by Michael Rowand, Esq.:—'That this meeting concur in the sentiments expressed by Sir Robert Peel in his place in the House of Commons, when moving for a committee to inquire into the subject of proposed railway bills; and deeply regrets that that Committee has not indicated any intention of proposing to Parliament a plan for restricting the number of bills to be authorized, as suggested by Government.'

"It was moved by Henry Dunlop, Esq., and seconded by James Finlay, Esq.:—'That although the selection of districts wholly unprovided with railway accommodation, and where the undertakings might be the means of beneficially employing the population, may appear invidious, yet it is the opinion of this meeting, that, in the present circumstances of the country, it is the duty of Parliament either to make such selection, or to resolve on postponing every railway bill without exception this session; or that, at all events, owing to the great change of circumstances that has taken place since the subscription contracts were entered into, it is but an act of justice

that, before incurring further expenses, the scripholders of these lines should have an opportunity of considering whether they will at present proceed with the bills or not; and that it would be desirable that no bill should be allowed to go on until the concurrence of a majority of the holders should be given at a meeting specially called for that purpose.'

"It was moved by G. K. Young, Esq., and seconded by Andrew Wingate, Esq.:—'That the meeting therefore agrees humbly to represent to the Prime Minister the propriety of his again bringing the subject before Parliament, and suggesting, for its immediate adoption, such a course as will prevent the ruinous consequences which must inevitably ensue if no check or limit is put to the railway bills in progress, and if these are allowed to go on in the usual manner: that this meeting further agrees to petition Parliament to the same effect, and authorizes the chairman to subscribe a petition in its name to both Houses, and to forward the same to the Earl of Dalhousie, President of the Board of Trade, and Sir Robert Peel, respectively, for presentation; and that the Chamber of Commerce of this city be requested also to memorialize Government to the same effect.'

"It was moved by Sir James Campbell, and seconded by William Macolm, Esq.:—'That the following gentlemen be appointed a committee to forward the petitions to Parliament and memorial to Sir Robert Peel, and to follow out the views of this meeting: viz., Bailie Whitehead, Sir James Campbell, Henry Dunlop, Esq., J. G. Hamilton, Esq., Hugh Cogan, Esq., Michael Rowand, Esq., Wm. Graham, jun., Esq., James Watson, Esq., James Finlay, Esq., Robert Baird, Esq., Wm. Malcolm, Esq., George K. Young, Esq., Graham Hutchison, Esq., John Stenhouse, Esq., William Robertson, Esq., James Scott, Esq., John Ross, jun., Esq., Andrew Wingate, Esq.'

"On the motion of Bailie M'Kinlay, the thanks of the meeting were unanimously voted to the chairman for his conduct in the chair.

"JOHN WHITEHEAD, Chairman."

We have not the slightest doubt that these resolutions will be followed by others in every town of importance in England. Had we penned the resolutions ourselves, they could not be more in conformity with the views we have expressed, and in which every one of the slightest financial experience must concur.

THE FUNDS.

In consequence of the liberality of the Bank of England, in lending out the deposits on approved securities, the pressure which would otherwise have overwhelmed the commercial interests has been averted. In our opinion the time of the pressure will arise whenever the loans granted by the Bank are in course of repayment, and that will be when the railway deposits are withdrawn from the Bank by the Accountant General.

The fluctuations in the funds during the month have been frequent, but not to any considerable extent. Consols have been at the commencement of the month 96½, and have been as low as 95½, and have since recovered to 96.

It seems to us impossible, if the legislature does not throw discredit on the railway system, that the funds can remain at 96, paying little more than 3½ per cent., when railway shares, such as the Birmingham, Midland, Great Western, South Western, York and North Midland, and other shares of established lines, are selling at prices which will pay 4½, 5, and even 6 per cent. for money. Such anomalies may last for awhile, but they cannot be enduring—either railway shares will improve in value or consols will be lower, and it seems very natural that sooner or later the pressure for railway capital will fall on the funds.

We refer our readers to our Stock and Share Lists, which will show them the fluctuations which have occurred. As for railway shares, without any exception they are lower, and there is scarcely a scrip share which is not at

a considerable discount. There is no doubt if the *liabilities* of the public were to be reduced within proper limits, that we should not see railway shares at the present depressed prices, and therefore it behoves the monied, commercial, and railway interests to unite in one common bond, and put an end to a state of things which if suffered to continue will involve them all in one common ruin.

The gross Receipts of Railway Traffic, made up from the week ending February 28th, to the week ending March 21st, showing likewise the Traffic of the corresponding weeks of 1845.

Total amount authorized to be raised.	Total amount already expended.	Last dividend.		NAME OF RAILWAY.	1846.	1845.
		Per share.	Per cent. per annum.			
£	£	£ s. d.	£ s. d.		£	£
100,000	140,903	—	3 10 0	Arbroath and Forfar	693	574
1,441,163	1,637,367	3 0 0	6 0 0	Birmingham and Gloucester... Returns imperfect.		
—	667,823	{ 80s. }	4 0 0	Bristol and Gloucester	1,037	948
800,000	589,362	{ 12s. }	2 12 0	Chester and Birkenhead	2,250	1,774
—	631,258	{ 13s. }				
270,000	349,736	{ 6s. 6d. }	3 14 0	Dublin and Drogheda	2,503	2,131
200,000	153,598	—	9 0 0	Dublin and Kingstown	2,637	2,604
362,000	302,118	3 0 0	6 0 0	Dundee and Arbroath	1,037	948
4,644,681	4,080,328	0 10 0	2 0 0	Durham and Sunderland	2,596	2,373
1,600,000	1,686,226	{ E. 6s. N. 5s. }	E. 6s. N. 5s. f	Eastern Counties and Northern and Eastern	26,373	14,154
1,453,900	1,104,773	1 10 0	6 0 0	Edinburgh and Glasgow	11,721	8,429
866,686	806,134	0 5 0	2 0 0	Glasgow, Paisley, and Ayr	7,007	6,028
2,364,333	2,597,317	0 5 0	2 0 0	Glasgow, Paisley, and Greenock	3,120	2,737
—	82,828	0 0 0	10 0 0	Grand Junction, amalgamated with Birmingham.		
1,730,000	1,296,196	5 10 0	6 0 0	Gravesend and Rochester	582	....
8,180,000	8,179,980	3 4 0	8 0 0	Great North of England .....	....	....
—	—	—	—	Great Western	62,608	52,749
—	701,740	1 10 0	6 0 0	Hartlepool	4,349	....
2,637,375	1,774,331	5 0 0	10 0 0	Hull and Selby, amalg. with York & N. Midland		
6,412,000	7,417,217	5 0 0	10 0 0	Liverpool and Manchester, amalg. with Birmingham.		
1,066,000	1,078,761	0 2 6	1 10 0	Lond. and Birm. & Grand Junc. Returns imperf.		
2,920,000	2,653,673	1 15 0	7 0 0	London and Blackwall	2,227	2,914
—	—	—	—	London and Brighton	13,859	11,685
921,333	842,522	0 7 0	3 10 0	London and Croydon	4,559	3,259
4,212,000	2,620,724	2 2 6	10 4 10	London and South Western	21,383	16,692
2,893,000	2,197,665	1 3 10 1/2	6 2 4	Manchester and Birmingham Returns imperf.		
4,743,333	3,372,240	2 18 0	8 0 0	Manchester and Leeds .....	....	....
680,000	842,725	2 14 0	5 16 0	Manchester and Bolton, & Bury	3,375	3,477
6,316,800	6,636,105	3 13 9	7 7 6	Midland	49,678	32,919
1,250,000	1,137,385	—	5 0 0	Newcastle and Carlisle	7,074	5,972
—	1,272,031	1 2 6	9 0 0	Newcastle and Darlington	10,704	4,286
210,000	316,839	1 5 0	5 0 0	Newcastle and North Shields ..	1,770	1,373
—	573,818	0 10 0	5 0 0	Norfolk	4,655	765
—	1,060,561	3 7 6	6 15 0	N. Union & Bolton & Preston, amalg. with Man. and Leeds.		
450,000	432,014	0 12 6	2 10 0	Preston and Wyre	2,122	1,385
1,533,000	1,313,225	0 16 0	3 4 0	Sheffield and Manchester	6,265	2,469
3,817,377	4,284,224	3 3 0	5 0 0	South-Eastern and Dover	21,141	17,689
640,000	848,343	—	5 10 0	Taff Vale	4,137	3,562
933,635	388,383	—	10 0 0	Ulster .....	....	....
998,686	1,632,859	50s., 25s.	10 0 0	York and North Midland	18,611	9,157
FOREIGN RAILWAYS.						
1,600,000	2,069,916	0 18 9	8 0 0	Paris and Orleans	22,858	16,199
1,440,000	—	0 18 6	8 0 0	Paris and Rouen	22,843	16,574

Shares.	Railways.	Paid.	CLOSING PRICES.			
			March 4.	March 11.	March 18.	March 25.
£		£				
50	Aberdeen	24	1 dis — 1 pm	.. — ..	4 — 2 dis	7 — 3 dis
100	Amber, Nott., Boston, & E. Jun.	24	.. — — — — ..
100	Birmingham and Gloucester...	125	125 — 127	125 — 127	125 — 127	124 — 126
25	Do. New (issued at 71 dis.)...	171	30 — 32	30 — 32	30 — 32	30 — 31
20	Birmingham and Oxford Junc.	2	.. — — — — ..
100	Bristol and Exeter	85	85 — 87 pm	83 — 85 pm	83 — 85 pm	82 — 84 pm
33½	Do. New	75	6 — 7 pm	4½ — 5½ pm	4½ — 5½ pm	3½ — 4½ pm
50	Bristol and Gloucester	3	23 — 25 pm	23 — 25 pm	21 — 23 pm	18 — 20 pm
20	Buckinghamshire	422.	.. — — — — ..
50	Caledonian	10	2½ — 3 pm	1½ — 2	1 — 1 pm	20 — 22 dis
25	Do. ½ Shares	24	1 — 1 pm	par — 1 pm	1 — 1 pm	1½ — 2 dis
25	Do. Extension	24	1 — 1 dis	1½ — 1½ dis	1 — 1	1½ — 2 dis
50	Cambridge and Oxford	13	.. — — — — ..
20	Chester and Holyhead	20	1 — 1½ pm	par — 1 pm	1 dis — 1 dis	3 — 2 dis
20	Churnet and Blythe	2	.. — — — — ..
25	Cork and Waterford	1½	.. — — — — ..
50	Cornwall	5	1½ — 1½ dis	1½ — 1½ dis	2 — 1 dis	2 — 2 dis
50	Direct Manchestr. (Remington's)	22	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	2 — 1½ dis
25	Do. do. (Rastick's)	5½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	2 — 1½ dis
25	Direct Northern	24	1 dis — par	1 dis — par	1 dis — 1 dis	1½ — 3 dis
50	Dublin and Belfast Junction ..	10	1 dis — par	1 dis — par	1 dis — 1 dis	1½ — 2 dis
40	Dublin and Galway	4	1 — 1 dis	1½ — 1 dis	2½ — 2 dis	2½ — 2 dis
	Dundalk and Enniskillen					
Average	Eastern Counties	14.16.0	21½ — 22	21 — 21½	20½ — 21	20 — 20½
14.16	Do. New	8.16.0	6½ — 7 pm	6 — 6½ pm	6 — 6½ pm	5½ — 6 pm
6.13.4	Do. Perpet. 5 per cent. No. 1.	6.13.4	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
6.13.4	Do. do. (No. 2)	6.13.4	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
50	Do. York Extension	10½	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
	East Lincolnshire		1 — 1½	1 — 1 pm	1 — 1 pm	1 dis — par
50	Edinburgh and Glasgow	50	70 — 72 ex d	71 — 73 ex d	72 — 74	72 — 74
25	Do. ½ Shares	5	.. — — — — ..
12½	Do. ½ Shares	12½	17 — 19 ex d	17 — 19 ex d	17 — 19	17 — 19
12½	Do. New ½ Shares	10	4 — 5 ex d	4½ — 5½ ex d	5½ pm	44 — 5½ pm
18	Edinburgh and Perth	5	1 dis — par	2 dis — par	2 dis — par	3 dis — par
	Ely and Huntingdon					
	Gloucester, Abergavenny, and Central of Wales					
20	Goole, Doncaster, & Sheffield	422.	1 dis — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 dis
25	Grand Union (Notting. & Lynn)	1½	1 dis — par	1 — 1 dis	1 — 1 dis	1 — 1 dis
	Great Eastern and Western — — — — ..
20	Great Grimsby, Louth, Horn-	422.	.. — — — — ..
	castle, Linc., and Mid. Junc.					
50	Great South. & West. (Ireland)	15	3 — 5 pm	2 — 4 pm	1 — 3 ex d	1 — 1½ ex d
40	Do. Extension	15	3 — 5 pm	1 — 3 pm	.. — — ..
100	Great North of England	100	215 — 220 pm	212½ — 217½	212½ — 217½	212½ — 217½
40	Do. New	5	45 — 47 pm	45 — 47 pm	45 — 47 pm	45 — 47 pm
30	Do. New	5	30 — 32 pm	28 — 30 pm	28 — 30 pm	27 — 29 pm
15	Do. New	11	11 — 13 pm	11½ — 13½ pm	11½ — 13½ pm	11 — 13 pm
100	Great Western	85	63 — 66 pm	60 — 63 pm	59 — 61 pm	55 — 57 pm
50	Do. ½ Shares	80	38 — 34 pm	30 — 32 pm	30 — 32 pm	29 — 31 pm
25	Do. ½ Shares	5	11 — 12 pm	10 — 12 pm	10 — 12 pm	9 — 11 pm
20	Do. Fifth	50	13 — 14 pm	11 — 13 pm	13 — 15 pm	11 — 13 pm
50	Guildford, Fareham, & Portsea	8	1 dis — par	1 dis — par	1 dis — par	1 — 1 dis
50	Hull and Selby	50	104 — 106 ex d	101 — 103 ex d	100 — 102	99 — 101
12½	Do. ½ Shares	12½	8½ — 9½ pm	8 — 9 ex d	8 — 9 pm	8 — 9 pm
25	Do. ½ Shares	7	19 — 20 pm	18 — 19 ex d	18 — 19 pm	17 — 19 pm
50	Lancaster and Carlisle	35	19 — 21	17 — 19 pm	17 — 19 pm	17 — 19 pm
	Do. New	5	4½ — 5½	4½ — 5½ pm	4½ — 5½ pm	3 — 4 pm
20	Leicester and Birmingham	222.	1 dis — par	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Leicester and Bedford	222.	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Leicester, Tamw., Cov., Birm., and Trent Valley Junction	422.	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
25	Liverpool and Leeds Direct ..	24	1 — 1 dis	1 dis — par	1 — 1 dis	1 — 1 dis
25	Liverpool, Manchester, and Newcastle Junction	24	.. — — — — ..
Stock	London and Birmingham	100	221 — 223	218 — 220	217 — 219	216 — 218
32	Do. Third	16	33 — 36 pm	33 — 36 pm	34 — 36 pm	33 — 35 pm
25	Do. Quarters	9	24 — 26 pm	23 — 25 pm	24 — 26 pm	23 — 25 pm
20	Do. Fifths	2	21 — 23 pm	20 — 22 ex d	21 — 23 pm	20 — 22 pm
25	London and Birm. Extension ..	1½	.. — — — — ..
Average	London and Blackwall	16.13.4	8 — 8½ ex d	8 — 8½ ex d	8 — 8½ pm	7½ — 8½ pm
	Do. New	24	1½ — 1½ pm	1½ — 1½ pm	1½ — 1½ pm	1½ — 1½ pm
	Do. Extension	3	.. — — — — ..
50	London and Brighton	50	64 — 64½	63½ — 64	60½ — 63	61½ — 61½
50	Do. Consolidated Eighth	40	13½ — 14½ pm	12 — 14 pm	12 — 13 pm	11 — 12 pm
50	Do. do. Fifth	20	.. — — — — ..
Average	London and Croydon	13.15.9	21½ — 22	21½ — 22	21½ — 21½ ex d	20 — 20½ ex d
9	Do. Guaranteed 5 per Cent. ..	9.0.0	1 — 1	1 — 1 pm	1 — 1	1 — 1 pm
Average	London and Greenwich	12.15.4	9 — 10 ex d	9 — 10	9 — 10	9 — 10
Average	Do. Preference or Privilege ..	18.17.2	22 — 24	22 — 24	22 — 24	22 — 24
Average	London and South Western ..	41.6.10	76 — 78 ex d	75 — 77 ex d	75 — 77 pm	73 — 75 pm
40	Do. New Consol. Eighth	28	14 — 16 ex d	13 — 15 ex d	14 — 16 pm	14 — 16 pm
50	Do. New	121	10 — 11 ex d	9 — 10 ex d	9 — 10 pm	7½ — 8½ pm
40	Do. New	10	7 — 9 ex d	6 — 8 ex d	6 — 8 pm	4 — 6 pm
50	London and York	24	1 — 1½ pm	1 — 1 pm	1 — 1 pm	1 — 1 dis
25	Do. ½ Shares	24	.. — — — — ..
50	London, Warwick, and Kidderm.	21	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
50	London, Salisbury, and Yeovil	21	.. — ..	.. — ..	1½ — 1½ dis	1½ — 1½ dis

Shares.	Railways.	Paid.	CLOSING PRICES.			
			March 4.	March. 11.	March 18.	March 25.
£		£				
50	Londonderry and Coleraine ..	7½	1 dis — par	2 dis — par	2 dis — par	3 — 1 dis
50	Londonderry and Enniskillen ..	7½	— — —	— — —	— — —	— — —
25	Lynn and Ely ..	10	par — 1 pm	dis — par	2 dis — par	2 dis — par
25	Lynn and Dereham ..	10	1 dis — par	2 dis — par	2 dis — par	3 — 1 dis
100	Manchester and Leeds ..	38	48 — 52 pm	45 — 50 pm	42 — 47 ex d	38 — 45 ex d
25	Do. ½ Shares ..	38	20 — 24 pm	18 — 22 pm	17 — 20 ex d	16 — 20 ex d
25	Do. ¼ Shares ..	2	11 — 15 pm	10 — 12 pm	10 — 12 pm	8 — 10 ex d
25	Do. Fifth ..	2	10 — 11 pm	9 — 10 pm	9 — 10 pm	7½ — 8 pm
64	Do. Sixteenth ..	6½	3 — 4 pm	2½ — 3½ pm	2½ — 3½ pm	2 — 3 pm
20	Do. Extension ..	42½	2½ — 3½ pm	2½ — 3½ pm	2½ — 3½ pm	2 — 3 pm
40	Manchester and Birmingham ..	40	77 — 79 pm	75 — 77 pm	70 — 78 ex d	75 — 77 ex d
10	Do. ½ Shares, A ..	4	7½ — 8½ pm	7 — 8 pm	7½ — 8 ex d	6½ — 7½ ex d
10	Do. do. B ..	2	7½ — 8½ pm	7 — 8 pm	7½ — 8 ex d	6½ — 7½ ex d
	Do. do. C ..	1	6½ — 7½ pm	6 — 7 pm	6½ — 7 ex d	5½ — 6½ ex d
	Do. Contin. and Welsh Junc. ..	1½	— — —	— — —	— — —	— — —
20	Manch., Buxton, and Matlock ..	42½	1½ — 2 pm	1½ — 1½ pm	1½ — 1½ pm	par — — pm
20	Manchester and Southampton ..	2	— — —	— — —	— — —	— — —
Stock	Midland ..	100	146 — 148 pm	142 — 144 pm	145 — 147 pm	141 — 143 pm
40	Do. New ..	18	14 — 16 pm	12 — 14 pm	12½ — 13½ pm	9 — 10 pm
Stock	Do. Birmingham and Derby ..	100	115 — 118 pm	112 — 114 pm	115 — 117 pm	112 — 114 pm
25	Newcastle & Darlington Junc. ..	25	18 — 20 pm	17 — 19 pm	17 — 19 pm	15 — 17 pm
	Do. New ..	1	9 — 9½ pm	8 — 9 pm	8 — 9 pm	5 — 7 pm
25	Do. New, Brading ..	25	17 — 18 pm	16 — 18 pm	15 — 17 pm	14 — 16 pm
25	Newcastle and Berwick ..	10	10 — 11 pm	9½ — 9½ pm	9 — 10 pm	6 — 7 pm
50	Newry and Enniskillen ..	4½	— — —	— — —	— — —	— — —
25	Newark, Sheffield, and Boston ..	1½	— — —	— — —	— — —	— — —
25	North British ..	30	6 — 7 pm	5 — 6 pm	5½ — 6½ pm	4 — 5 pm
12½	Do. ½ Shares ..	6	2½ — 3½ pm	2 — 3 pm	2½ — 3½ pm	1½ — 2½ pm
12½	Do. Carlisle Extension ..	1½	— — —	— — —	— — —	— — —
25	Do. Dalkeith ..	25	— — —	— — —	— — —	— — —
5	Do. do. ..	5	— — —	— — —	— — —	— — —
50	Northern and Eastern ..	50	67 — 69 ex d	67 — 69 ex d	67 — 69 pm	67 — 69 pm
50	Do. Serp (issued at 5 disc.) ..	40	17 — 19 ex d	17 — 19 ex d	17 — 19 pm	17 — 19 pm
12½	Do. ½ Shares ..	12½	16½ — 17½ pm	16½ — 17½ pm	16½ — 17½ pm	16½ — 17½ pm
	Do. New ..	1	16 — 16 pm	16 — 16 pm	16 — 16 pm	16 — 16 pm
50	North Kent and Direct Dover ..	2½	— — —	— — —	— — —	— — —
20	North Staffordshire ..	42½	3½ — 3½ pm	3½ — 3½ pm	3½ — 3½ pm	2 — 2½ pm
25	North Wales ..	3½	— — —	— — —	— — —	— — —
25	Norwich and Brandon ..	18	6 — 7 ex n	5 — 7 ex n	4 — 6 pm	4 — 6 pm
10	Do. New ..	4	3 — 3½ ex n	2½ — 3½ ex n	3 — 3 pm	2 — 3 pm
20	Northampton, Banbury, and Cheltenham ..	2	½ dis — par	1 — 1 dis	½ dis — ½ dis	½ dis — ½ dis
50	Oxf., Worcester, and Wolverh. ..	18½	— — —	— — —	— — —	— — —
50	Perth and Inverness ..	2½	— — —	— — —	— — —	— — —
50	Portsmouth Direct ..	3½	— — —	— — —	— — —	— — —
25	Preston and Wyre ..	25	34½ — 35½ pm	33½ — 34½ pm	33½ — 34½ pm	33½ — 34½ pm
20	Do. ½ Shares ..	2½	— — —	— — —	— — —	— — —
25	Richmond ..	10	6 — 7 pm	5½ — 6½ pm	5½ — 6½ pm	5 — 6 pm
	Rugby and Huntingdon ..	2	— — —	— — —	— — —	— — —
25	Scottish Central ..	10	7 — 8 pm	6 — 7 pm	6 — 7 pm	2 — 3 pm
25	Do. New ..	2½	— — —	— — —	— — —	— — —
25	Scottish Midland ..	5	par — 1 pm	— — —	— — —	5 — 1 dis
25	Shrewsbury, Wolverhampton, and St. Staffordshire Junc. ..	2½	— — —	— — —	— — —	— — —
25	Shrewsbury and Birmingham ..	2½	— — —	— — —	— — —	— — —
50	Shropshire and Hereford ..	42½	— — —	— — —	— — —	— — —
50	South Devon ..	35	2 dis — par	2 dis — par	3 — 1 dis	2 — 2 dis
20	South Midland ..	42½	1½ — 2 pm	1 — 1½ pm	1½ — 1½ pm	1½ — 2 dis
Average	South Staffordshire Junction ..	33.24	37 — 38 pm	36 — 37 pm	36 — 37 pm	34½ — 35½ pm
50	Do. New (issd at £33) No. 1 ..	16	1½ — 2½ pm	1½ — 2½ pm	1 — 2 pm	par — 1 pm
50	Do. New (£33 6s. 8d.) No. 2 ..	10	1½ — 2½ pm	1 — 2 pm	1 — 2 pm	par — 1 pm
25	Do. New (£30) No. 3 ..	15	— — —	— — —	— — —	— — —
25	Do. New (£15) No. 4 ..	2½	— — —	— — —	— — —	— — —
20	Staines and Richmond ..	1	par — 1 pm	par — 1 pm	par — 1 pm	dis — 1 pm
20	St. Alban's, Hatfield, & Hertford Junction ..	42½	— — —	— — —	— — —	— — —
50	South Wales ..	5	par — ½ pm	1½ — ½ dis	1 dis — par	2½ — 1½ dis
20	Tean and Dove Valley ..	1½	— — —	— — —	— — —	— — —
20	Trent Valley ..	20	20½ — 21½ pm	21½ — 22½ pm	22½ — 22½ pm	21½ — 22½ pm
20	Trent Valley and Holy Junc. ..	2½	— — —	— — —	— — —	— — —
20	Vale of Neath ..	2	— — —	— — —	— — —	— — —
20	Warwickshire and London ..	42½	— — —	— — —	— — —	— — —
20	Waterford and Kilkenny ..	5½	— — —	— — —	— — —	— — —
	Waterford, Wexford, Wicklow, and Dublin ..	1½	— — —	— — —	— — —	— — —
20	Welsh Midland ..	2½	1½ — ½ dis	1½ — 1 dis	1½ — 1 dis	1½ — 1½ dis
	West Riding Union ..	42½	— — —	— — —	— — —	— — —
	Wexford, Waterf., & Valentia ..	1½	½ dis — par	½ dis — par	1 — ½ dis	1 — ½ dis
50	Wilts, Somerset, & Southamp. ..	2½	— — —	— — —	— — —	— — —
20	Worcester and South Wales ..	20	6 — 7 ex n	5 — 7 ex n	4 — 6 pm	4 — 6 pm
50	Yarmouth and Norwich ..	20	— — —	— — —	— — —	— — —
50	Do. New ..	2½	1 — ½ dis	1½ — ½ dis	1½ — ½ dis	2 — 1 dis
50	York and Carlisle ..	50	95 — 100 pm	95 — 98 pm	95 — 98 pm	94 — 98 pm
25	Do. ½ Shares ..	25	47 — 49 pm	46 — 48 pm	46 — 48 pm	46 — 48 pm
25	Do. Scarborough Branch ..	25	47 — 49 pm	46 — 48 pm	46 — 48 pm	46 — 48 pm
50	Do. Selby ..	30	43 — 45 pm	42 — 44 pm	42 — 44 pm	41 — 43 pm
25	Do. Extension ..	15	16½ — 17½ pm	17½ — 18½ pm	18½ — 19½ pm	18 — 19 pm

FOREIGN RAILWAYS.

Shares.	Railways.	Paid.	CLOSING PRICES.			
			March 4.	March 11.	March 18.	March 25.
£	Barbadoes	£	1 —	1 —	1 —	1 —
25	Boulogne and Amiens	19	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Bordeaux, Toulouse, & Cette, (Mackenzie's)	2	par —	par —	par —	par —
20	Bordeaux, Toulouse, & Cette, (Espelet's)	2	par —	par —	par —	par —
20	Calcutta & Diamond Harbour	7a.	1 —	1 —	1 —	1 —
20	Central of Spain	5a.	1 —	1 —	1 —	1 —
20	Ceylon	5a.	1 —	1 —	1 —	1 —
20	Demerara	21	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Dendre Valley	2	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Dutch Rhinish	5	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	East Indian	5a.	1 —	1 —	1 —	1 —
20	Great Indian Peninsula	5a.	1 —	1 —	1 —	1 —
20	Gt. North. of France (constitd.)	5	11 — 11 pm	10 — 11 pm	11 — 11 pm	10 — 11 pm
20	Great Paris and Lyons	2	1 —	1 —	1 —	1 —
20	Great Western Bengal	5a.	1 —	1 —	1 —	1 —
22½	Great Western Canada	3½	1 —	1 —	1 —	1 —
20	Jamaica South Midland Junc.	1	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
15	Jamaica North Midland	1	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Do. Extension	1	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Jersey	1	1 —	1 —	1 —	1 —
20	Louvain and Jemeppe	4	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Lyons and Avignon	2	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Luxembourg	4	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Namur and Liege	4	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
20	Orleans and Vierzon	10	9 — 10 pm	9 — 10 pm	9 — 10 pm	9 — 10 pm
20	Orleans and Bordeaux	6	5½ — 6½ pm	5½ — 6½ pm	5½ — 6½ pm	5½ — 6½ pm
20, 16s.	Over-Yssel	4, 3, 4	9 — 1 dis	9 — 1½ dis	9 — 2 dis	9 — 2 dis
20	Paris and Lyons (Laflitte's)	2	1 —	1 —	1 —	1 —
20	Do. do. (Ganneron's)	3	1 —	1 —	1 —	1 —
20	Do. do. (Calken's)	2	1 —	1 —	1 —	1 —
20	Do. do. (Sud Est)	2	1 —	1 —	1 —	1 —
20	Paris and Orleans	20	51½ — 52½	50½ — 51½	51 — 52	50 — 51
20	Paris and Rouen	20	41½ — 42½	40½ — 41½	41 — 42	40 — 41
20	Paris and Strasbourg (Ganss.)	2	1 —	1 —	1 —	1 —
20	Do. do. (Comp. de L'Est)	2	1 —	1 —	1 —	1 —
20	Rouen and Havre	20	29 — 30	28½ — 29½	29½ — 30½ pm	28½ — 29½ pm
20	Sambre and Meuse	6	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
14	Strasbourg and Basle	14	9 — 10	9 — 10	9 — 10	9 — 10
20	Tours & Nantes (constituted)	5	1 —	1 dis — par	2½ — 3 pm	2½ — 3 pm
20	West Flanders	4	par — 1 pm	1 dis — par	1 dis — par	1 — 1½ d.

DAILY PRICE OF STOCKS FOR MARCH,

AT THE CLOSE OF THE MARKET.

March.	India Stock.	Bank Stock.	Cons. money.	Cons. Acct.	3 per ct. red.	New 3½	Long Anns.	India Bonds.	Ex. Bill.
2	263	260½	261	261	97-6½	98	10 11-16	Nothing done	35.7 pm.
3	261	260½	261	261	98	98½	10 3-4	—	36.5 pm.
4	—	260	261	261	98	98½	10 11-16	—	35.5 pm.
5	—	260½	261	261	98	98½	10 9-16	49-37 pm.	36.4 pm.
6	—	260½	261	261	98	98½	10 11-16	40 pm.	36.2 pm.
7	Shut	260	261	261	98	98½	10 11-16	Nothing done	36.5 pm.
9	—	260½	261	261	98	98½	10 9-16	—	35.6 pm.
10	—	260½	261	261	98	98½	10 9-16	—	36.3 pm.
11	—	Shut	261	261	Shut	Shut	Shut	—	36.7 pm.
12	—	—	261	261	—	—	—	—	36.7 pm.
13	—	—	261	261	—	—	—	—	36.7 pm.
14	—	—	261	261	—	—	—	—	36.7 pm.
16	—	—	261	261	—	—	—	—	37.4 pm.
17	—	—	261	261	—	—	—	—	36.3
18	—	—	261	261	—	—	—	—	36.35 pm.
19	—	—	261	261	—	—	—	—	36.9 pm.
20	—	—	261	261	—	—	—	94	37.7 pm.
21	—	—	261	261	—	—	—	—	37.8 pm.
22	—	—	261	261	—	—	—	—	37.8 pm.
23	—	—	261	261	—	—	—	28-30 pm.	37.7 pm.
25	262	—	261	261	—	—	—	25.50	37.7

WHERE OUGHT THE RESPONSIBILITY TO LIE ?

WALSTAB D. SPOTTISWOODE.—WOOLMER D. TONY.

So long as matters in the railway world proceeded smoothly we heard nothing but harmony ; the incidents of a break-down were left for fate to determine, and a consummation so little to be wished as a failure was sedulously kept out of sight. The question was indeed blinked ; and as everybody was to gain at everybody's expense, everybody regarded success as certain. Paradoxes abound in commercial transactions, because from the connexion of moral with physical operations many of the phenomena appear paradoxical to those who look for a purely moral or purely physical result. Thus the paradox presented itself of everybody winning at everybody's expense, an operation which was quite capable of being kept up as much longer, instead of having been so suddenly checked. When there is a period of ease, prices must rise—the tendency is to a rise, because they cannot remain stationary ; so in adversity the downward tendency is continuous, as we have lately seen ; if the upward tendency be checked, it must be followed by a fall, if the downward tendency be checked a rise takes place. From the nature of such operations there can be no such thing for any length of time as a lull. Thus it happened, that last year with rising prices every one was apparently gaining, and there was no dispute about the liability of directors or allottees.

The prices, however, being purely artificial, when a check came down they tumbled without exception, and the scrip market became as depressed as before it was buoyant. Shares in the market and shares out of the market suffered the same fate ; he who had ten thousand pounds premium in his tin box, soon found he had, instead, some thousands discount ; and those who were obliged to sell, experienced a miserable revulsion in the market. Then schemes broke up without means to meet the expenses, and the cry arose, "Who is to pay for this ?"

Before we consider what happened, it is necessary to advert to one point and to bear it in mind,—What was done in the case of those few companies which were shipwrecked either before or after allotment during the flush ? The determination of this will give us an insight into principles and practice, and enable us to apply a test during the subsequent discussion. The answer is, that in none of such cases was the attempt ever made to amerce the allottees ; but in case of failure before allotment the directors bore the brunt, and after allotment the shareholders. In most cases, however, the transaction was "carried on," and the scheme let down quietly, so that the ultimate loss became very small, and directors and shareholders bore with equanimity losses which were counterbalanced by gains elsewhere. The attempt to amerce allottees was never made, for these simple reasons—first, it was never known in practice, and next, it would have presented an insuperable bar to any parties of respectability applying for shares, and so still further lowering the market. It is well known that already the form of deed adopted, and the necessity for signature precludes the higher capi-

talists from applying for shares, and the amercement of applicants would undoubtedly have resulted in the application of men of straw only.

This is the result which would necessarily have occurred, and there might perhaps have been a further rise in premiums, as the risk would then have been enhanced. By all parties who have looked into the principles which govern these transactions, it is now held that premiums are not adventitious and supererogatory bonuses, but the mere mercantile charge for the risk of the seller. This risk consists in the advance of the deposit, the responsibility of signing the deed, the liability of being overhauled by the House of Commons, and the uncertainty of reimbursing himself by the sale of the scrip. To add to these the chance of amercement for the expenses of a broken enterprise would evidently greatly increase the risk.

During the flush the happy position of directors and provisional committeemen was envied, who received as compensation their hundred or their thousand shares*, which they took up or abandoned just as the shares were at a good or bad price in the market. Still this was considered but a fair remuneration for the risks they ran of having to pay all the expenses, in case of failure of the scheme.

The arrival of the panic on the Change in the rate of interest by the Bank of England, aggravated by the efforts of the *Times*, and accompanied by the expected failure of many schemes to deposit their plans on the 30th November, produced a scene of confusion, against which, as there was no reason for its occurrence in the state of affairs, no prudence could guard. The *Times*, which neglected no opportunity to make a hit, blew the flame of discord among all parties, and instead of the defunct schemes being quietly wound up from time to time, as would naturally have happened, a feeling of want of confidence was engendered, the prices of good undertakings suffered with the bad, and the means of peaceable adjustment were very much diminished. The plea of public good was of course the motto of the *Times*; but no public good required a course of action so mischievous, and no public good has been achieved; but, on the contrary, very serious public injury, as was predicted by ourselves and all those who watched soberly what was going on. The spirit of speculation and gambling has received no check, but is only diverted, and instead of being employed in carrying out new schemes, it is energetically directed to break them up.

"Si naturam furcâ expellas tamen usque recurrit."

Anything more deserving of reprobation than the present breaking-up plots can scarcely be conceived, for they are heartless and unjustifiable plots against the property of others, who certainly have the right to expect that they shall not be disturbed in their investments. The furor of scheming would have received its natural check at the several crises of giving notice, lodging the plans, serving the landowners, lodging the deposits, passing standing orders, and passing committee, which severally serve to weed, sift, and reduce the number of active schemes. Under the ordinary state of affairs these are cleared off gradually; but through the alarm propagated in the present emergency every difficulty has been opposed to the quiet settlement of unsuccessful undertakings, and the

* Mr. Dowglass, chairman of the committee of the Direct London and Exeter, received as his allotment one thousand shares.

more so as all scrip property being depreciated the means of parties to meet their liabilities are greatly reduced.

While there was hope that things might improve the evil day of adjustment was put off; but by being delayed a greater number of cases came on at the same time, and then the difficulties began in earnest. One of the greatest evils of last year was the starting of schemes by solicitors, secretaries, and committees, who had had no previous experience, and who became dependent for advice upon the stag school. No discrimination was used in forming committees, stags and men without character or means were let in to swell out the lists; while, in the rage of starting, attempts were made to get up surveys and lodge plans under circumstances when it was totally impossible, and before a single share had been allotted, or a sixpence subscribed. Any engineer was employed whether he had character or not, and every solicitor thought he could perform the necessary legal duties. In the crush every scamp in the engineering and surveying professions was taken into full pay, and the usual safeguards against misconduct broken down. All those who had been stamped for exclusion by repeated misdeeds, found ready employers in committees who were too inexperienced to know their antecedents, quite satisfied with professional skill without inquiring into professional character, and too eager to get any one with the name of an engineer to raise any serious exertions as to merits. Committeemen perhaps could not conceive that personal character is to be as much looked to in the choice of an engineer as professional ability, and many companies rued the appointment of men who, after exacting extravagant terms, caused a fatal delay in the lodgment of the plans, or deposited them in a worthless condition, while they made inordinate demands for compensation. It is an evil attaching to the engineering profession, that in a period of great demand, all the disgraced members get fresh opportunities of repeating their misdeeds, while many young men are misled to be careless in their personal conduct.

The effect of the state of affairs we have described, was to plunge unsuccessful companies into the greatest distresses. There were many schemes which, before a sixpence was paid up, had incurred debts to the tune of twenty thousand pounds; whereas, had experienced parties been employed, the expenses would not have been three thousand pounds. It has never been usual, previous to allotment, to incur any other expenses than those of advertising and printing, and these could rarely exceed the amount we have named; though in many of the new companies they have been much more, by swindling advertising agents being employed, who charged exorbitant amounts on the original prices of the advertisements. As this was one great cause of evil, it may be useful to give some explanations, which will not be ineffectual on a future emergency. In many of the new and stag companies, the solicitor took the chief part in the management, being the party, perhaps, who advanced the funds. One of the earliest proofs he obtained of the labours of his position, was his being beset by two classes of parties, one, the canvassers of the stag pseudo railway journals, and of numerous general papers which had no greater connexion with railways. The other was by the less respectable advertising agents applying for his custom. The solicitor was very much annoyed by the impudence of the crew of canvassers, who vaunted to him on the one hand, the merits, large circula-

tion, and vast influence of their respective journals, the columns of which they tendered for his disposal; and on the other hand, in case of non-compliance, threatened all kinds of vengeance. As the solicitor had no intercourse in railway affairs, and did not know the *Railway Times*, *Journal*, or *Record*, from the *Railway Telegraph*, *Iron Times*, or *Stock Exchange Express*, he had no means of detecting the pretenders, and perhaps gave way to them to save trouble; while as the legitimate publications did not apply and did not threaten, they were perhaps neglected. As the stag journals very soon sent in their bills, with charges twice or thrice those of the *Times* or railway papers, the solicitor found out another source of difficulty. In the meanwhile, the class of advertising agents, to whom we have alluded, kindly tendered themselves to his notice, offering to take the whole trouble off of his hands, to give him credit, to do the business cheaper, perhaps offering him a commission, and stating their power to get favourable notices for him in the daily and railway journals. The solicitor was generally glad to give the whole matter into the hands of the agents, leaving them as they particularly wished, to use their own discretion in inserting the advertisements in such publications as they should think best. The turn of the advertising agent now began, and a system of swindling was carried out on a comprehensive scale. The class of agents to which we allude, so far from being, like the established agents, men of capital or character, are destitute of both means and reputation, and so far from having any influence with any respectable paper, dare not show their faces in the publishing offices. They may very properly be called stag agents. Having scraped together something to make a start, they put in as few advertisements as they can, in the daily and railway papers, and the rest in stag journals, inferior miscellaneous papers, and the weaker country periodicals. The reason for this arrangement is two-fold; in the first place, with respectable journals they have to settle their accounts regularly, and in the next, with the other publications enumerated, they were allowed to do as they liked, the arrangement being generally this, that small sums were paid from time to time, as the necessities of the parties, which were great, required; while a commission was allowed of twenty, five-and-twenty, and thirty per cent. or more, with low charges, and the permission to charge whatever they pleased, every kind of puff inserted, and a promise given against affording any information in case of complaint. In about a week the agent made his call on the solicitor, and requested an advance as he had to pay ready money with all the leading journals. The solicitor was naturally surprised, after the promise about credit, but gave a cheque, or, if he demurred, was threatened with the scandal of the agent giving up the business, and noising among the public the want of means. In a short time the solicitor found that particular advertisements which he had ordered to be inserted in the *Times* and the railway journals, were not inserted; and having been several times promised that they should be attended to, informed at last that the agent could not put the advertisements in, as those papers refused to receive anything from him without the money. He does not forget, however, to charge in his bill for advertisements not inserted.

The Advertisement Agent's Bill being a great source of misery to bubble companies, is worth looking at. It may be three thousand pounds, five thousand pounds, or seven thousand pounds, of the latter

sum one hundred pounds, perhaps, is put down to the *Times*, two or three hundred pounds to all the railway journals, one thousand pounds, perhaps, to the *Iron Times*, (which perhaps received in hard cash two or three hundred,) one thousand pounds to the *Stock Exchange Express*, large sums to the *Railway Shareholder*, *Railway Telegraph*, *Steam Times*, *Army and Navy Gazette*, *Court Gazette*, the *Blackamoor's Review*, the *Chimney Sweeper's Oracle*, the *Royal Dustman*, and numerous unknown and defunct journals. Of the seven thousand pounds, four thousand pounds has, perhaps, been charged by the papers, two thousand pounds being paid to them in cash and long bills, one thousand pounds remaining due, and one thousand pounds deducted in the shape of commission. This is not an exaggeration, but a very close approximation to the actual truth, which can be verified by numerous sufferers, and by an investigation of the estates of some of the swindlers, who have, notwithstanding their extortions, been forced to wind up.

This state of affairs has caused equal annoyance to the respectable advertisement agents and to the newspaper proprietors, and some of the latter have gone the length of abjuring agency altogether, while all prefer direct dealings. The *Times*, in the beginning of this month, contained a declaration to that effect, and the railway journals, the *Railway Times*, *Herapath's Railway Journal*, the *Railway Record*, *Railway Register*, and *Railway Herald*, have long acted upon it. All these railway journals keep accounts with respectable companies, and some of them, in case of the winding up of unfortunate but well-conducted concerns, have behaved with great liberality. The terms allowed by them to agents have always been sufficient for all respectable men, being ten per cent. commission and a quarterly account, and most of them allowed a commission to solicitors and all country agents; and it is the general impression of advertisers and newspaper proprietors that the commission is the remuneration the agent receives, and that he charges the newspaper prices. During the late crisis companies who knew what they were about, took care to scrutinize the agent's bills, check the insertions, and send to the newspapers, requesting an account of the charge. This was done with great liberality by the daily and railway papers, and the result was to establish a most extensive system of swindling, to enable large deductions to be made, and to induce parties to carry on their business direct. Twenty per cent. overcharge was found to be moderate, while in many cases twice and thrice the newspaper prices were charged. Some companies succumbed to the demands without inquiry, the agents commencing proceedings against the leading members by service of numerous writs or *citations in bankruptcy*; and in one case a leading country banker was served this trick, and to liberate him from the annoyance, the agent's claim was settled without deduction, setting up that they are dealers buying a certain amount of advertisement space from the newspaper proprietors, and retailing it to the public. The newspaper proprietors do not, however, admit any such doctrine. Most of the leading railway companies keep an account with the railway papers, and where they employ an agent, require the production of the vouchers of the newspapers, and in some cases the payment of the money. It has been no uncommon case, however, in the new companies, for agents to receive the money for advertisements, before even

they had got the charge from the papers, which they did by calculating the amount in the fixed scale of charge of each paper.

The advertisement bill was No. 1, the solicitor's bill for preparing the references was No. 2, and the engineer's bill was No. 3. No arrangement was made by the new committees with the advertising agent as to his rate of charge, none with the solicitor as to his, and none with the engineer as to his, and no guarantee that in case of failure of due performance compensation should be paid. It is under these circumstances that the liabilities have been incurred, with which it is now attempted to saddle shareholders and allottees; although not merely have they had no control over the expenditure, but the trustees or the directors neglected all proper means of keeping it within due limits.

When the smash took place after allotment, and the payment of the deposit, the directors tried to fix the shareholders with the expenses of staggering in shares, and with all the exorbitant and fruitless charges of the several parties, so as to swallow up the greater part of the deposits. This naturally excited discontent, and the flame was sedulously blown by the *Times*. This ended in the case of *Walstab v. Spottiswoode*.

The case of those schemes, where the allotment had been made but not responded to, was worse. The parties naturally looked upon to meet the deficiencies were the committeemen. Some committees met together, and very gravely allotted out the expenses all round at so much per head, and made a demand on their brethren for the quota of each. Many of the committeemen were already at Boulogne, some were aldermen, who never pay, and some were gentlemen with the same principles and determination, having no fear of being stripped of their property, for they could at any time shake it off with ease, and whom the demand for something or for nothing could very readily be met in the phrase—

Si nullum excute tamen nullum;

for nothing was all that was to be got from them.

When committeemen found that the Honourable Mr. Brag paid nothing, that Capt. Dudley Smooth paid nothing, and Cornelius Colick, Esq., of Stag Hall, paid nothing, they found that the payments of the quota made but a small total, and instead of meeting the case fairly, and submitting to the punishment of their own want of caution, they began to cast about how they could get out of the scrape without paying. Some were picked out by the creditors to be sued, some more bolted, and the rest asked the solicitor whether the allottees could in any way be made to pay. A solicitor could readily give an answer to this, if he were a man who looked more to the quirks and cruditics of law than to the actual and practical bearing. In almost any system of law any kind of opinion can find sufficient support, and any kind of case can be tried, and it would argue very small ingenuity, if a solicitor could not start a case against allottees. On the naked facts of the parties applying for shares in the printed forms, and promising to pay up the deposit and sign the deeds, a case of a contract was made out, and it was urged that allottees could be proceeded against for breach of this contract. At this bait many committees eagerly caught, without any knowledge per-

haps that while theory favoured this view of the question, there were so many other contending and conflicting views much better founded, which would baffle all attempts at the enforcement of an attempt so novel and so ill supported. After, at endeavours more or less successful to extort money from allottees by threatening leaders, the case of *Woolmer v. Toby* was tried.

The case of *Walstab v. Spottiswoode* was tried in the Court of Exchequer before Lord Chief Baron Pollock, on February 27, and was what was called an action of assumpsit. The plaintiff was the widow of a Colonel, and was induced, with the view of increasing her fortune, to apply for shares in the Direct Birmingham, Oxford, Reading and Brighton Railway Company, in which she received an allotment of thirty shares, on which she paid the deposit of 2*l.* 12*s.* 6*d.* per share, making 78*l.* 15*s.* The concern fell to the ground, and the plaintiff did not even receive her scrip. At length she applied for the return of her money in full, without any deduction for expenses, and laid her action against Mr. Andrew Spottiswoode, one of the directors. This gentleman is printer to the Queen, and being the proprietor of the *Pictorial Times* newspaper, allowed himself to be put in the committees of a great many schemes, with the view of obtaining the advertisements for his paper, in which he gave outrageous descriptions of the merits of the several undertakings. What good it could possibly do to advertise in a pictorial newspaper, it is not easy to conceive, neither is it easier to conceive the weight which the remarks of such a publication would have with the sober and staid capitalists, who rely on the railway press as their informants and advisers. Certain it is, however, that in many schemes in which Mr. Spottiswoode was a director, the *Pictorial Times* was made a considerable recipient of the funds. The *Iron Times* figured in the same manner, and several schemes were started by its concoctors, on which they made large charges; among them were the Rugby, Derby, and Manchester, the Liverpool Direct, the Lynn, Wisbeach, and Peterborough, and the Great European. Some of the parties in the latter scheme are being sued by the *Iron Times* for two thousand pounds for advertising, although the scheme was a mere abortion. It is in this manner, as we have before explained, some of the enormous liabilities of the defunct companies have been swollen by shameful staggering practices. In one case a stag journal was maintained by a secretary, who officiated for some of the Moorgate Street Companies, and all the stag journals were more or less connected with the dens of Moorgate Street and Bartholomew Lane. This kind of staggering has, however, received a heavy blow, and nearly all the stag journals are now defunct, with heavy losses to their concoctors. Mr. Spottiswoode being a man of large means, was selected by the plaintiff in the present case, and it is likely that the advertisements he received for the *Pictorial Times* and others of his newspapers will be dearly paid for.

The Chief Baron stated that it seemed 400,000 shares had been applied for, 70,000 had been allotted, and 4,000 paid on. He held that the case came entirely within that of *Nockels v. Crossby*, and that the scheme having fallen to the ground, each subscriber might, in an action for money had and received, recover the whole of the money advanced by him without the deduction of any part towards the payment of the expenses incurred. The jury returned a verdict for the plaintiff, but

liberty was given to the defendant to move to enter a nonsuit, when, except on the speculation of the glorious uncertainty of the law, the verdict will remain undisturbed.

The case of Woolmer and other *v.* Toby, junior, was tried at Exeter, on March the 20th, before Mr. Baron Rolfe. This arose out of the Direct Exeter, Plymouth, and Devonport Railway scheme, in which the defendant applied for fifty shares, and received an allotment of forty, the terms being to pay 2*l.* 12*s.* 6*d.* for each on or before Saturday, the 20th December, and with which the defendant did not comply. The plaintiffs, who are directors, brought an action against him to recover damages for the breach of the agreement, laying the damages at 105*l.*, the amount of the deposits. It is to be observed that this was not an action to recover the amount of the deposits, but to recover *damages* on account of breach of covenant. The scheme being a complete failure, the directors were liberal enough on the *fifteenth of December*, during the height of the panic, to allot the forty shares to the defendant Toby. The defendant objected on several pleas to the action, in all of which the judge reserved liberty to enter a nonsuit. The only point which he left to the jury was, whether a reasonable period elapsed between the application and allotment. Baron Rolfe said the one question of fact to be decided was, whether the allotment in nine weeks from the time of the defendant's offer was or was not a reasonable time. It was true, he said, nine weeks was a large portion of the existence of the company, but they must look at it as if the company had gone on; for his own part he thought it was a perfectly reasonable time. The jury gave a verdict on this point for the plaintiffs, damages 105*l.*

It will be seen the case in its integrality will go for argument, and as to the verdict, we apprehend it must be set aside for misdirection, as whatever view may be taken by Mr. Baron Rolfe and an Exeter jury on the reasonableness of an allotment on the *fifteenth of December*, it is tolerably clear this has not been decided on competent evidence. If a jury of railway men could be had to try Mr. Baron Rolfe, we conceive there would be no dissentients as to the insanity of delaying an allotment to the fifteenth of December.

The case of Woolmer *v.* Toby has yet to be decided, but that of Walstab *v.* Spottiswoode may be considered as completely settled by the several decisions, which are to be found in the books. Woolmer *v.* Toby has a hard battle to fight to secure its being recorded for the plaintiff at common law, while there is the whole equitable construction untouched. The attempt to carry it out seems so desperate, that we do not think it worth while to go into the legal bearings, but shall devote our remarks to the general policy of amercing allottees. Our first case, however, is with the case of Walstab *v.* Spottiswoode, which though it breaks, as a new light, on the unfortunate provisional committeemen, is so strongly supported, that there can be little doubt of its legal effect. We shall first address ourselves to one of the most prominent cases, illustrative of this, we shall then show the conflict of the two cases of Walstab *v.* Spottiswoode, and Woolmer *v.* Toby, and then consider the general policy, which affects both, and the propriety or impropriety of the affirmation of either side of the question.

Nockells *v.* Crosby and others, 3; Barnewall and Cresswell, 822, is the case on which Chief Baron Pollock relied, and it is quite enough

to illustrate the matter before us without going further. It is to be found also in Wordsworth on the law of joint stock companies. This was a scheme for establishing a tontine, and the prospectus set forth that the money subscribed was to be laid out at interest for the benefit of the subscribers. The plaintiff, Nockells, joined the concern, and paid his subscription. Expenses were incurred for advertising, printing, and what are called preliminary expenses, but nothing was done towards carrying out any part of the proposed plan. Very few parties joined, and the money subscribed was lodged at the bankers, when the directors resolved to abandon the plan. The plaintiff then brought his action against the directors or managers, for the recovery of his whole deposit, without any deduction for the preliminary expenses. In giving their final judgments on the case:—

Mr. Justice Bailey said.—“In all projects some expense must be incurred before many members join. Upon whom should that fall? Undoubtedly, if the scheme proves abortive, it should fall on the original projectors, and not on those who advance their money on the faith of its going on.”

Mr. Justice Holroyd.—“Here the concern was never actually set a going, and I think the expenses incurred in setting a scheme afloat are not to be paid out of the concern unless they are adopted when it is actually in operation. All the steps taken were only preparing to carry the project into effect, and, as it never was carried into effect, I think the plaintiff entitled to have back the whole money he advanced.”

Mr. Justice Littledale.—“I am of the same opinion on the general principle. If persons set a scheme on foot and assume to be managers, all expenses incurred in the first instance till the scheme is in actual operation must be borne by them in the first instance; when it is in operation the expenses and charge of management should be borne by the concern, and then it may be fair that the preliminary expenses should be paid the same way, because then the subscribers have the benefit of them.”

The meaning of this is very clear, though as to the policy or sense of it that is quite another matter, for lawyers take very queer views on practical subjects. So well, however, was the doctrine here laid down known in well informed quarters, that it formed one of the chief arguments for urging provisional committeemen to close all outstanding claims by any means, and not to wait for the contributions of others, which was to wait for being ruined, but to make the sacrifice at once, and clear everything up, leaving the question of contributions to be afterwards settled in chancery, by the defaulters. The provisional committeemen have, however, raised a storm, which they will find it very difficult to allay, and their ill-advised measures with regard to allottees will constitute their chief difficulties.

If the case of Woolmer v. Toby, against allottees could be established, as well as that of Walstab v. Spottiswoode against committeemen, the committeemen would still be no better off, as by paying the whole amount of the deposit, the allottees could again sue the committeemen for the returns of the whole amount of the deposit. It would end in the same thing, the payment of the expenses by the committeemen, but with the addition of very heavy law costs.

As to the moral claim upon the allottees, we think there is none. In the last three months we have heard a great deal about the villany of the allottees, that the committees proceeded with their expenditure on the faith of the numerous and respectable applications made to them, and that the nonpayment of the deposits is a gross and scandalous breach of faith. So far from any accusation against allottees being justifiable, the charge lies just the other way ; but in determining a controversy of this kind, facts constitute the best argument. We, therefore, ask for any proof of this dependence on allottees, and here not merely will the statement we made in the first instance come to our aid, but the whole experience on the subject. Until this present day no one ever heard of dependence on allottees, but in 1825, in 1835, and in 1845, whenever any scheme was broken up, the loss fell upon the provisional committee, and no attempt was ever made to ask money of allottees.

If any one can be found to stand forward in the face of this experience, and say that he depended on the applicants, he cannot give a greater proof of his incompetency for the post he undertook, and we are very sure that his own experience will belie him, for there are very few men who are committeemen, who have not rejected allotments over and over again. What is a provisional committeeman, and why is he appointed, have been very pertinently asked of those who shrunk from their responsibilities. If it were not to bear the brunt of a failure we apprehend there would be none who would refuse to undertake it, while if there were no such responsibility, why should provisional committeemen have the privileges which they possess ? If a concern turns out a good one, a large allotment is a handsome compensation, and if it turns out a bad one, they must take it as a set off.

When indeed it is considered that it is only by the imprudence of provisional committeemen that any liability could occur, the impropriety of a claim on allottees becomes more forcible. In every concern that is respectably conducted, the solicitor either gives a guarantee that he will not hold any committeeman responsible for the expenses, or he requires a deposit from each to meet the preliminary expenses, and thus no liability can accrue. If large debts are incurred for surveys and references, what have allottees to do with them, they never should have been incurred, and should be paid by those in whose imprudence they originated. It will be found that while no check over the expenditure can be exercised by the applicants, so in the extortion of money from allottees, no accounts are ever presented, and in most cases, while the provisional committee receive the money, they do not pay the creditors of the company.

The common and daily practice with regard to allotments of shares is so well known, so well established and determined, that for committeemen to plead their ignorance is rather too strong an attempt on the credulity of the public. If an allotment is considered worth anything, it will be taken up ; if it be not, it will be rejected ; and this is the dependence which all committeemen, have to trust to, and by which they have had to regulate their expenditure. The payment of a deposit has become a matter of trade, and if the goods, on delivery, are worthless, no one will take them. While some committeemen are pleading their dependence on allottees, other stags will be able to

refer in illustration of their views to the practice of rigging the market in order to induce allottees to pay up.

Most assuredly no interest of the public justifies the proceedings against allottees, for the working of it would be most prejudicial. The liability to meet the expenses of an unsuccessful scheme, has been one of the great checks on scheming, and even the least cautious projector likes to have some party of respectability on whom he can come in case of failure. Take away this check, and give committees the power of mulcting applicants for shares, and stags may start companies with the greatest confidence, and make a most excellent speculation of being committeemen. If the concern turns out a good one, of course they allot all the shares, as usual, to themselves; if doubtful, they allot five shares apiece to themselves, a number to straw nominees, and a number to respectable applicants; if the concern prove bad, they allot themselves five shares apiece, and all the rest among the respectable applicants. Thus under all circumstances they would be secure, and if any profit were to be got, they would get it, while the public would have to pay for all.

For these reasons we must protest against the policy of suing allottees, but we also object with equal energy to the present state of the law affecting provisional committeemen. If it were possible to carry out the law completely, which it is not, an applicant for shares would be in this position, that if there were a premium he would take it without demur, and if a discount, he would come upon the directors for the repayment of the whole deposit, without any deduction for expenses. The public have managed this matter sufficiently well for themselves, and they never demur at any reasonable deduction for expenses, and it would be certainly much better for the legislature and the bench to leave such matters of trade to their legitimate management, rather than to embroil them by seeking to meddle in them. For the same reason committeemen will find it advantageous not to go against the established practice for reasons however specious, but to conform to it, for they can never safely contend against the great body of the public. The law on these matters is the law of the market, and it is the true; indeed people always best make the laws by which their own business is conducted. In the teeth of enactments every proceeding on the Stock Exchange is illegal; it always has been so, and always will be so, while laws are made which are unsuitable to their proposed ends.

We recommend committeemen not to be tempted into innovations, nor to be led away by the quirks and cavils of lawyers in matters of business, but to comply with the established practice. The delusion of the form of application for shares has had a great deal to do with bringing about the present mischiefs, and for the future we recommend the restoration of the old simple form of "I beg to apply for shares," without any covenants, but to put a covenant into the prospectus, that any money which may be paid shall go in discharge of preliminary expenses.

DUTCH-RHENISH RAILWAY.

WE have given some space in our volumes to the Netherlands railways, and we do not regret it, for we are convinced that undertakings better deserving of the attention of the capitalist can scarcely be found. A large population is certainly one of the first elements which would be looked to in the selection of a railway country, and this the Netherlands possess, for the country is indeed one of the most populous in the world. There is further great commercial activity, and the trading habits of the community give an additional importance to the population; for as is well known among railway men the activity of the population has a great influence on the extent of the traffic. In an engineering point of view the country also possesses great advantage in the flatness of the soil, while the lines of water communication, which come in the way, all admit of being crossed on a level in conformity with the general practice of the country.

The Dutch-Rhenish Railway is among the chief of the Netherlands railways, and has obtained a greater share of public attention. The high premium which its scrip bore on coming out was one inducement to this, but there were better grounds in the merits of the undertaking, and in the class of capitalists, by whom it is held. We have no hesitation from our own experience in saying that it is as well held as any first-class line in England.

The circumstances under which the Dutch-Rhenish Railway came out have been the cause of some invidious rumours, for the shares having previously been taken by great capitalists, only come among the public at a high premium. Hence, there was misunderstanding in some quarters and jealousy in others, as in the case of the Great Western of Canada; for being different from the practice of English companies, it was not understood that the undertaking was an old one, and that leading capitalists having taken a grant of it, the public had no legitimate claim on the shares. During the panic the shares have been run down, and statements have been put forth to represent the undertaking as on a bad footing, and to cause discontent on the part of those who had bought in shares at a high premium. This had so much effect, as to induce the Amsterdam directors to send forth a special report on the state of the concern, and the London directors to call a meeting for its consideration.

This meeting took place on the 9th inst., and was rendered particularly remarkable by the manner in which Mr. Sheriff Chaplin, who officiated as chairman, elucidated the position and prospects of the company. His remarks obtained the greater weight from his holding 4025 shares in the concern, from his having visited the country, from his being chairman of the South Western Railway, and having taken an active part in the formation of the Paris and Rouen Railway, besides his great experience as a carrier and coalmaster. The meeting was attended also by many of the leading railway capitalists and resulted in congenial confidence in the soundness of the undertaking.

The basis of the Dutch-Rhenish enterprise is a line executed by the

Netherlands government between Amsterdam, Utrecht, and Arnheim. This was constructed under the direction of Mynheer Vander Kem, a Netherlands engineer of deserved reputation, and it has given complete satisfaction to all who have examined it. This line, and further concessions, the government made over to the Dutch-Rhenish Company, and in this company the King of the Netherlands, the Prince of Orange, and many leading men took part, but the chief stake in the undertaking has devolved upon English capitalists.

From near Utrecht a branch is conceded to Rotterdam, and arrangements have been just concluded with the Prussian government, by which a union is effected with the Rhenish railway system. The Overysseel line falls in at Arnheim, and other connexions are here to be established.

The traffic consists therefore of two great classes, the local traffic and the through traffic.

The local traffic may be variously divided. The Rotterdam branch forms also a direct line between Rotterdam and Amsterdam, the two greatest cities in the country, and the two places of chief trade, the former having 100,000 inhabitants, and the latter 250,000, and being seven miles shorter than the existing railway route by the Hague which carries 600,000 passengers annually, of which we are fairly entitled to reckon 300,000 as through passengers. Moreover, the section between the Hague and Rotterdam is not completed which prevents the traffic from reaching a further extent, while a shortening of the distance, and a diminution of expense, must still further develop the traffic, and the saving by the Dutch-Rhenish route is not less than one seventh of the Leyden and Hague route.

An Amsterdam and Rotterdam line would at all times be worth much, but it involves also the local traffic of these towns with the inferior, and their through traffic. Thus the traffic from both towns to Utrecht and Arnheim is obtained, and from Rotterdam to Overysseel and the eastern provinces.

Utrecht has a population of 60,000, and much trade, and is placed centrally on the line with diverging branches to Rotterdam, Amsterdam, and Arnheim, and a further connexion with Haarlem by Amsterdam, and with the Hague by Rotterdam.

The Hague, being the seat of the legislature and the government, is placed in communication with many of the provinces and chief towns in the east of the country, from which naturally much traffic must accrue.

The country about Arnheim is preferable to the lower districts, and with the improved communication a desire has sprung up for building country residences in the neighbourhood, which can be frequented by the inhabitants of Amsterdam, Rotterdam, Utrecht, the Hague, and Haarlem.

Many towns will benefit by this trunk line in their correspondence with different parts of the country, and we may enumerate Leyden, Gouda, Delft, Dort, Schiedan, Naarden, Schevelingen, Alkmaar, Enkhuysen, Nigurwegen, and Zutphen; but the resources of the line may be gathered from the fact that it will accommodate a million and a half of people.

By the connexion with the Prussian and Overysseel lines a communication is formed with the Prussian and Hanoverian systems of railway extending as far as Stettin, and accommodating Berlin, Hanover, Hamburgh, Cassel, and many towns of less importance. The passenger traffic

to north Germany must assuredly become very great, and particularly when the route by Harwich is again opened, and a short sea passage between Rotterdam and Harwich secured. Much of this traffic has been diverted through Ostend, but it cannot be doubted that it can be readily restored to its ancient channels.

The intercourse between the Netherlands and Germany is very great, and particularly in goods traffic, but during the winter months of the year this is much impeded from the water communications of Holland being closed by ice. Thus it sometimes happens that from November to April goods lying in the Netherlands ports have been detained there until an opportunity has been afforded of forwarding them to their destinations in the upper country, to the great injury of trade, whereas regular intercourse would of itself go far to cheapen the cost of conveyance, and to extend trade.

One objection which has been frequently raised as to the value of this traffic is that it can never successfully compete with the cheap water communication. It is forgotten, however, that during a considerable part of the year, no competition with the railway can take place, and as to the practicability of water communication competing with a well-organized line of railway every fact tends to disprove it. In this country, the only limit to goods traffic on railways is the want of accommodation, and every line is laying in a greater stock of waggons, orders being given by thousands, while as the chain of railway communication approaches completion the chance of competition is further diminished. The only circumstances under which competition can take place are when the canals possess a superiority with regard to access to market or transhipment. In Holland, the carriers are building steam tugs to haul vessels along, and as Mr. Chaplin observed, when it comes to the employment of locomotive power, it can be used with as much economy and effect on a railway as on a canal, while the remarks of the Amsterdam directors have shown that the Dutch-Rhenish Railway can carry cheaper than any of the water lines. In many cases the railway will have no rival, as in crossing the water lines of North Germany, which have no canal communication to unite them.

Mr. Chaplin proved the soundness of the undertaking by a comparison of the existing traffic on the Dutch-Rhenish Railway, and on the Amsterdam and Rotterdam Railway, with the traffic at similar periods on the railways of England and France. Taking the first six months of opening, he deduced the following results:—

	Date.	Length.	Passengers.	Pass. p. Mile.
London and Birmingham	1839	94	301,552	3208
Grand Junction	1837	96	233,520	2432
South Western	—	58	281,706	4857
Paris and Rouen	—	84	348,976	4150
Dutch-Rhenish	1845	58	279,966	4827

This proves that the basis of traffic is to be found, and as to receipts the fare on the Dutch-Rhenish line is higher than the Paris and Rouen, and nearly as high as the English charges.

The cost of construction on the Dutch-Rhenish line is as 18,000*l.* against 28,000*l.* on the South Western, and 45,000*l.* on some English lines. The working expenses are about the same for coke, carriages, and locomotives, and cheaper for wages, while instead of the enormous poor rates and passenger taxes, which on the South Western amount to

25,000*l.* per year, the tax on the Dutch-Rhenish is about 750*l.* per annum. As a comparison of expense it may be stated that the cost per mile run on the Dutch-Rhenish was, in 1845, 3*s.* 1*d.* per mile, and on the South-Western, in the same year, 3*s.* 6*d.* per mile run, while the Dutch-Rhenish traffic is not yet developed.

For the purpose of developing the goods and steam-boat traffic, a terminus is to be made at the entrepot at Amsterdam, and at the quays at Rotterdam, which, with a continuous railway communication of many hundred miles, will enable passengers, goods, cattle and coals, to be conveyed to any part from the vessel's side without transhipment on the way, or the use of craft.

The enterprise is so promising that only one doubt could arise, and which Mr. Chaplin stated had occurred to him, while his answer to it is the best that can be given. When he said he averaged the profitable nature of this undertaking, he asked why did not the Netherlanders themselves carry it out. A little reflection, however, and a reference to his own experience, reassured him. In this country the same indisposition to investment was found in the infancy of railway undertakings, the novelty of the enterprise, the want of experience as to success, and doubts as to the practical organization are quite sufficient to deter the public from investing their money in such speculations. In the Paris and Rouen Railway this gentleman had met with the same reluctance, and thus a ten per cent. line, the 20*l.* shares of which now stand at 41*l.* was left in the hands of the English. On that occasion, we have Mr. Chaplin's evidence that 200 English took as many shares as 2300 Frenchmen, and with much greater ease. Mr. Chaplin might have added that many of these Paris and Rouen shares have been disposed of to the French at the double price, now that the value of the enterprise has been proved, and the safety of the investment. The certainty of a like result happening in Holland is, in our eyes, one of the chief inducements to the enterprise, and a great argument for the legitimacy of such investments.

It has been too hastily assumed that all investments in foreign speculations must be injurious to this country, and chiefly because the exact operation has never been well watched. These railway operations, properly speaking, are only directive organizations for employing the labour of a country in the construction of railways. The amount of capital really sent out from this country is very small; for when once the enterprise is set going, the means are derived from the scene of operation, money being raised from local capitalists on loan, and shares being disposed of to foreigners at enhanced prices. Thus the amount of English capital employed at any one time is very small, and is frequently represented by goods in the market, while England derives a large profit from the whole operation. We doubt if more than three or four hundred thousand pounds was ever employed at one time in the Paris and Rouen undertaking, while all the original capital has been long since reimbursed, and a profit of at least 2,000,000*l.*, either realized by this country, or held in hand available for other operations in France, and yielding an annual income. Other countries are paying for our skill in finance, our enterprise, and our foresight in business. We are buying the raw material, and waiting while we sell the finished article at a greatly increased price.

RAILWAY REFORM, AND RIGHTS OF SHAREHOLDERS AND THE PUBLIC IN THE RAILWAY HIGHWAYS OF THE UNITED KINGDOM.

THE best pamphlet on the subject of Railway Reform, is that of Mr. Troup, who has long taken an active interest in railway proceedings, and a prominent part in opposition to the South Eastern and Brighton Companies.

Mr. Troup is an advocate for local management on the turnpike trust system, in which we can by no means concur with him.

He also favours the purchase of the railway system by Government. He says—

“Why the public interests in such undertakings are now sacrificed to the purposes of creating a 10 per cent. gambling stock, when the government funds produce but 3 per cent., is a fit subject for serious consideration by every landowner, merchant, and tradesman in the country; and the object in publishing this pamphlet is to prove the fraudulent working of the present system, for the information of those who have not given the same attention to the proceedings of persons hitherto so improperly exercising the absolute control of the existing railways, and to prove, beyond all reasonable doubt, that the present system is a disgrace to a great commercial country like England: and although the facts stated are, to a certain extent, confined to the south-eastern district, in which the author resides, they are a fair example of most lines in the East, West, and Northern counties.

“In making these remarks, it must be understood that they are not intended to reflect on the majority of Directors, who are honourable men, but more or less influenced by the patronage they possess, and by some of the more active and jobbing class with whom they become associated in the management.”

The testimony Mr. Troup affords to the stimulus of the 10 per cent. dividend is in our minds just the very reason for keeping it up; not the reason for abolishing it. We have always insisted that it was in consequence of this stimulus that we have seen such a great extension of the railway system. Mr. Troup, with another motive, says—

“The numerous projects of 1845 are the results of the 10 per cent. clause, by creating a desire for railway investments: but the general inexperience of the promoters, and, in many cases, their anxiety for realising some of the unfair advantages enjoyed by the managers of the old companies, has, fortunately for the public, operated as proofs of the necessity for a revision of the 10 per cent. system, which may be judged of by the following example:—

The cost of the Brighton Railway is £3,000,000 ^a			
Do.	do.	Great Western	.. 7,000,000
Do.	do.	Birmingham	.. 6,000,000
Total			£16,000,000

But the terms for purchase by the Government being 25 years on a 10 per

^a The charge of three millions does not include any branch except the short one to Shoreham.

cent. income, the price will be 400,000,000*l.* The original estimates of those lines (and which are about a fair value for all the requisite works and land) were about 6,000,000*l.*; therefore, if ever the Government should decide on purchasing them, the sum of 40,000,000*l.* must be given for what could be made, within a moderate distance, as competing lines, for about 6,000,000*l.* Any practical road surveyor or builder, acquainted with railway works, who will take the trouble to examine the quantities of the respective works and land, will support this opinion. Taking into consideration the proper cost of construction, and the small cost of the locomotive power, which is only about 9*d.* per mile for drawing a train with hundreds of passengers, there are substantial grounds for rigid investigation into the proper cost of construction of railways, and the general expenses of management, to prove what can justify the charges of from 1*d.* to 3*d.* per mile for each passenger, when one-third of that amount must produce ample returns on the requisite capital, under sound and honest management: because if the present charges for the first class passengers is 3*d.* per mile, on a cost of 16,000,000*l.*, and 30 per cent. for working expenses, the same passengers could be conveyed at 1*d.* per mile on a cost of 6,000,000*l.*; and there can be no reasonable doubt the shareholders would receive a larger per centage of profit by the great increase of traffic, even if the working expenses amounted to 50 per cent."

The argument of Mr. Troup on the excess price of the existing lines also affords a reason against Government interference; for if Government had bought up the old and indirect lines, when the Board of Trade brought forward the proposal, it is clear we should never have gained the cheap and direct lines. Mr. Troup does not, however, agree with the Government Railway Board:—he wishes another constitution.

"With respect to the present Government Railway Board, it is one of the worst constituted in the kingdom for the purposes intended. At its head is a military engineer. Now what would be said, if Sir James McAdam, or any other eminent road surveyor, had been appointed to superintend the fortifications of the country? The appointment of a military engineer is equally as absurd for the formation of highways, notwithstanding royal engineers may have superintended the making of a few roads in the colonies."

Mr. Troup, while he opposes the Government Board, also objects to the whole corps of civil engineers, whom he wishes to supplant by road surveyors.

It is perfectly true that capitalists have taken possession of railway management: but whose fault is that? While we admit the fact, we do not therefore concur with Mr. Troup.

"Landowners have hitherto had the principal control of the highways of the country near their respective estates; but they are being superseded by Liverpool, Manchester and London merchants. This is a just ground of complaint; for the interests of landowners are much affected by the removal of the traffic from the turnpike roads; and although the new highways may run through their land, they have no access; except at a station frequently placed two or three miles distant. It appears monstrous that a set of adventurers, without a shilling of local interest, should obtain an Act of Parliament to make a road through land, and prevent the owner from the benefit of its use at least once during the night or day for the conveyance (under proper regulations for the public safety) of produce, manures, &c."

The chief part of Mr. Troup's pamphlet is occupied with a discussion on the cost of works; particularly on his favourite theme, the Brighton

Railway; and as it gives a good exemplification of his view, we shall extract his criticisms at length.

"A committee, appointed by the shareholders in 1842 to investigate, state in their report, that 'in order to account for the excess of expenditure, they refer to the explanation of the engineer.' Although the following excuses, made by Mr. Rastrick, for the enormous additional outlay, are scarcely worth notice, still, in order that both sides of the question may be fairly laid before the shareholders and the public, they are added with suitable comments :—

"1st. 'The earthwork was originally calculated at the price of the day; but immediately afterwards a general rise of wages took place, and consequently a greater price was required for it.'

"The earth-work was estimated at 9½d. One mile and half average had, at least, 1½d. per cubic yard above the average price paid in Sussex on turnpike roads, upon which the advantage of moving the earth on rails was not obtained. The average price of labour, by the operation of the new poor laws and other causes, during the progress of the works, was lower than at the time the revised estimates were made; and the men who actually performed the work received a price which left a large profit to the contractors, supposing they received the price estimated by Mr. Locke and Mr. Rastrick.

"2nd. 'The quantity of earthwork was increased to a very considerable extent by the slopes in most of the cuttings having been made flatter, it being impossible to ascertain the exact nature of the soil at such great depths below the surface.'

"The engineer and his witnesses swore, before the Committee of the House of Lords, that borings had been made in every part of the line. It is well known, that the earth can be bored to ten times the depth of any cutting on the line; and if 1,000,000 cubic yards extra were removed, (but which is doubted,) the cost should not exceed 30,000l.

"3rd. 'The slippery nature of the materials with which the embankments were made, occasioned such very great slips, that the quantity of materials to make the same good and increase the slopes, as well as the faggoting, draining, pounding, and puddling, occasioned a large additional expenditure.'

"This is perfectly absurd: for an embankment cannot require drainage beyond what is made in the first instance by culverts or bridges; for the form of an embankment prevents the probability of water lodging on any part of it, if properly made; and the trifling expense of repairing slips in an embankment as the works proceed, or within twelve months after, falls, as a matter of course, on the contractor. It must be farther borne in mind, that a large quantity of the cuttings were not required, and were carried to spoil.

"4th. 'There was a very great proportion of the materials that came out of the cuttings that was originally intended to have been made use of to form the embankments; but the experience of the use that had been made of material of the same quality in other parts of the works demonstrated that it was perfectly unfit and unsafe to be made use of for that purpose. The consequence was, that this bad material was obliged to be run out to spoil, and an equal quantity procured from the side cuttings, and in all these instances doubling the quantity of earthwork.'

"These are the boldest assertions ever advanced; for there are no kind of materials that can be excavated, in any part of the country, which a respectable competent surveyor or engineer would run out to spoil, instead of using it to form an embankment, if the latter was required to be formed of the earth to be excavated.

"5th. 'The quantity of the brickwork, in almost all the bridges, retaining walls, &c., was obliged to be increased, to give that additional strength which the slippery nature of the earth, both in the cuttings and in the

embankments, rendered necessary. Great additions were made to widen several of the bridges, and in other places bridges were demanded that had never been contemplated.

"If there is any truth in the statement respecting additional strength being required, it is no proof of sound judgment on the part of the engineer; but if ten or twenty cubic yards of extra concrete or brickwork were required to each bridge throughout the line, the sum of 10*l.* or 20*l.* each would not amount to above 2,000*l.*; and if six extra bridges were required the cost of the ordinary description would not exceed 300*l.* or 400*l.* each.

"6th. 'The stone of the country was calculated to have been made use of; but comparatively little could be found that was of a sufficient degree of hardness, or that would stand the weather, and therefore stone was obliged to be had that came from other countries at a great extra expense.'

"This statement is at variance with the evidence of the engineer when before the Committee of the Houses of Parliament; for abundance of stone was found on the line. A large quantity was used for Waterloo and Southwark bridges, and other public works. The engineer will find much difficulty in proving the failure of stone used for the works.

"7th. 'The weights of the rails and chairs and their appendages were considerably increased; the experience of other railways having convinced the directors that it would be most economical to add to their strength; as all other railways, then in course of execution, were adopting the same measures.

"If the evidence of the engineer is referred to, the estimated price of iron, 12*l.* per ton, will prove that a saving ought to have been effected quite equal to the additional weight; and, if the contracts were open and fair, that they must have been taken at less price than the original estimate.

"8th. 'The sleepers were not calculated to be Kyanized in the original estimate.'

"Suppose the cost of Kyanizing to be 100*l.* per mile, the extra cost is little more than 5,000*l.*

"9th. 'The number and extent of the bridges and viaducts have been considerably augmented.'

"In the revised estimates it is stated that the earthwork is reduced from nine to about six millions of cubic yards. This reduction caused an extension of the brickwork in viaducts, which was included.

"10th. 'The tunnels, and their culverts, drains, and adits, have cost nearly three times the original estimate; those through the chalk being originally calculated to require brick arching only over the top; whereas they have required to be bricked throughout with an extra thickness of brickwork, and a considerable portion set in Roman cement. No water was ever expected to be found in the tunnels; whereas during the winter seasons the water very much obstructed the operations and progress of the works, and on several occasions stopped them altogether for short periods.'

"The evidence of Mr. Rastrick's crack contractor, Mr. Hoof, gives a flat contradiction to the statement as to cost; his estimate being at the rate of 20*l.* per yard, forward bricked throughout. As respects the assertion of any man, and especially an engineer, who will come before the public and state that he did not expect to find water in the earth one or two hundred feet below the surface, no observation is required, beyond an appeal to common sense. Any person paying for sinking a well would be exceedingly annoyed if he did not get water at half the depth. In fact Mr. Rastrick knows very well that the expense of providing the necessary drainage for the tunnels was included in Mr. Locke's estimate and his own.

"11th. 'The extent and dimensions of the culverts through the tunnels and the deep cuttings in the chalk formation, were never anticipated to have been necessary; but fortunately they have been executed in such an

efficient manner that they have been of the most eminent service during the late season, and could not possibly have been dispensed with.'

"These culverts are mere drains, costing in reality but a trifle in proportion to the total outlay.

"12th. 'Circumstances have required the stations to be made of a much more extensive nature than could have ever been thought necessary; and at all the stations on the line quadruple lines of rails have been laid down, so as to keep the main line always open; and land has been taken at the stations on the line for the use of traders both for coal and merchandize, of which I expect a large traffic; for unlike all other railways, there is no other communication that can compete with this railway; besides a multitude of other circumstances that it is almost impossible to enumerate.'

"The extra land referred to must be the purchase of Mr. Kemp, which is included in the charge for land. The short lengths of extra rails, if measured, could not amount to one mile in length of single line, and therefore cannot have cost above 2,000*l.* extra. As to the multitude of other circumstances, they were amply covered by the large sum of 69,000*l.* reserved for contingencies. In respect to the station, 5,000*l.* extra will make a great show at Brighton, where materials are cheap; and there is nothing very costly in the station.

"13th. 'In the original estimate there was not any thing set down for locomotive engines and tenders, first and second class passenger carriages, vans, trucks, horse boxes, carriage trucks, coal waggons, coke waggons, goods waggons, cattle waggons, engine houses, coach houses, passenger sheds, offices, warehouses, wharfs at Shoreham, coke ovens, coal stores both at Shoreham and Brighton, and all the paraphernalia of the fitting up and furnishing the same, &c., &c., &c.; as all these articles and things were considered as belonging solely to the carrying department, and for which no estimate was originally made.'

"The coke ovens are trifling, and must be covered by the estimate. The carrying part of the concern could have been accounted for by furnishing an inventory with the cost of each article.

"14th. 'In fact, the original estimate for the London and Brighton Railway was made out on the same plan as two thirds of all the railways that have been made were calculated upon.'

"15th. 'That is to say, for a railway with two lines of rails from terminus to terminus, with a crossing from one line of rails to the other at every ten or twelve miles, with a small portion of land for stations.'

"16th. 'In the same manner as all the canals in the country have been made, namely, a canal from terminus to terminus: now the cost of these works is the capital of the company.'

"17th. 'The carriers of the canal making and providing their own wharfs, docks, warehouses, cranes, offices, boats, horses, &c. Now the costs of all these establishments is the capital of the carriers.'

"18th. 'On a railway, if the company are to become the carriers, they of course must provide themselves with the necessary means of carrying on the traffic as enumerated in the 13th paragraph, and this capital ought to be considered as a separate and distinct capital from the railway capital.'

"These excuses are too absurd to notice, except by observing that they confirm the fact of the charges beyond the estimates being totally unaccounted for in value."

ON PREVENTING ACCIDENTS IN MINES.

BY R. RETTIE, C.E.,

INVENTOR OF THE NEW "SIGNALS OF DISTRESS" AND FOR PREVENTING
"COLLISION AT SEA," AND NEW TIDAL LIGHT, ETC.*(Continued from page 122 of vol. II.)*

IN offering an apology for my long silence on the prevention of accidents in mines, I may observe that from the vortex of railway speculation, and the immense rush after railway scrip, shares, allotments, &c., mines and mining were not only at a discount during the dog days of the mania, but, I verily believe, had you politely requested capitalists during the last six months to accept some mining shares, that they would have refused the shares of our best mineral investments. Well, well, every dog has its day, and so have they. The railway mania has passed, and reminds one much of the "simoom of the desert," leaving behind it ample vestiges of its desolating ravages. And now, when a healthier tone begins to appear, the mining interests of this great commercial country are again beginning to be more readily and truly looked after. He knows little, indeed, of his fatherland who can coldly look on its mines or miners without emotion. Speculation in trade may rise or fall, and even mines will be at times unproductive. But what, let me ask, would not all the classes of England suffer were she despoiled of her mineral wealth? We cannot but feel, when we observe the indifference which is too often paid to this great branch of Britain's trade—greatest of all in point of wealth and importance—her fuel, her iron, and all the multifarious minerals so necessary to her existence among the nations, and, in fact, the greatest source of her independence, to every right thinking mind,—if aught can be done which either can assuage the woes of the miner, or in the least degree prevent those truly heart-rending accidents which are almost of daily occurrence, it would become our scientific bodies who profess to meet and talk over the various important inventions of the day—it would become them, now that the free spirit of liberality is stalking with giant strides from the government downward, to make one grand movement, and excite their dormant energies a little more, and endeavour by their funds to stimulate those who have the talents and ingenuity to come forward and devote their time and abilities to doing everything in their power to promote those improvements, which they merely behold as they come out, and wonder at and admire, but too often, by the return of another day, forget as a dream that has been told; and what was viewed as a pleasing sight, as far as ingenuity was concerned, was admired, but they could not be troubled to give it a helping hand or the aid of their influence as members of a scientific body to push it along!

Too often, alas! do many of the most useful improvements of the day fall still-born to the ground, from the sheer indifference of those savans who take them up or lay them down, as a matter of mere moonshine; while

reflection would tell them that these inventions were not brought forth for the whim and caprice of those whom they appear to amuse for a moment, but to be applied for the benefit of the mass. I cannot but continue this subject when I think on the apathy of those who really have the power by their station and their rank, not only those of the nobility, but in literature, the arts, sciences, &c.,—men whose gigantic minds are sealed up in sloth, beating about with a fawning after royalty, or a paltry popularity, when at the same time they do not use that station, that influence, and knowledge for the generous or noble motives—the good of humanity, by striving to introduce many of those valuable discoveries which emanate from those in the lower walks of life, who, had they been blessed, perhaps, with wealth, might have left them in the distance, even in the same field they now appear placed to overlook and assist. When we think on many of those valuable improvements which have been suggested for the safety of the miner—when we reflect upon the many valuable lives which have been protected by this truly useful lamp, the “Davy”—it is not to be wondered if we write with the “pen of irony” against those who by a little deviation from the original plan, by which means parties are so vain in their self-conceit as to imagine that they, by their bombast, can change a principle, or run it down, or perhaps, to cause a feeling of distrust amongst those whose duty it is to be always on the alert in the careful using of the same. When we know the risk the miners run in the improper using of the “lamps;” for every thing may be abused, or used improperly, or allowed to get out of order; and when we find that charlatans would endeavour from sheer quackery and ignorance to write down one lamp and cry up another; when we know that as to the principle of action, either of the one or other, they are equally ignorant; can it be wondered at to hear a tirade against the “Davy,” while facts, undoubted facts, stare them in the face and challenge them to gainsay that the lighting up of mines is of the greatest importance, as the whole safety of the miners and the mines are entirely depending,—and the value is of such a nature that he must be bold indeed to turn into ridicule this Davy lamp, which has been found and proved to be useful for such a length of time;—and endeavour to palm off an article which, to every practical judge, must be so obvious that it cannot stand inspection, or bear comparison with the other?

That the Davy lamp, when properly constructed and in good order, is perfect, I hesitate not to affirm; when provided with double gauze, no current will penetrate; unless the gauze be far decayed by continued ignition, which may have so impaired it, or if the gauze be otherwise injured, then, and not till then, will the fire-damp penetrate and cause explosion. But no spark of the wick will ever cause explosion!

That the “Clanny Lamp,” with glass protector, which is allowed by some to be superior to the Davy, I must also negative as being incorrect. It is, no doubt, advantageous as to light; but that advantage is gained at the price of its utility and safety; and in all such matters safety is of paramount importance. Glass is brittle. It is also self-evident there are ten chances to one in the event of its safety; placed in the mine, subjected to every vicissitude, it cannot be safe. Yes, in a lecture room—in the hands of a scientific gentleman, who can coolly and calmly put it down—it may stand for ages; but not so in a pit!

If, then, the chances are so great for its safety, wherein does it become superior to the Davy? Some scientific gentlemen go so far as to imagine in their dreamy theories, that now that glass (merely because the duty is taken off) is to change itself, its very nature, into the pliability of copper; nay, you will be able to hammer it at least without breaking: so they say! Would that these scientific gentlemen,—these would-be savans! (when they preach such arrant nonsense in those temples dedicated to science, surrounded by common tradesmen, who sicken at their ignorance so displayed! for the time has now come when all are able to comprehend sense from nonsense,) would really learn their subject better before they appear among their inferiors, no doubt, in standing, but superiors in information, and talk such stuff at scientific meetings.

Musseller has also a lamp, which is said to be better than either; unfortunately, not having seen it prevents my giving an opinion. The more do I regret it, because it has been held in such high estimation. But while on this part of my subject, the lighting of mines, I cannot omit to mention the suggestion of a new lamp by Dr. Murray, of Hull, a gentleman of well-known talents in all that can do good, or improve the condition or the safety of his fellows. This gentleman has never ceased to spend his time, his talents, and, I believe, his purse, in bringing out many valuable improvements. The lamp that he suggests for mines is by a well-known principle of drawing the air from the purest source, the bottom of the mine, by means of a flexible tube, or some such thing; but certainly far before the "Clanny Lamp," for it is fed from a single gauze direct upon the flame! and from the most combustible gas contained in the roof of the mine! while Dr. Murray takes the feeding of his flame from the very bottom of the pit or floor, where vital air is purest. But to light mines in a proper and a scientific practical manner, must not only depend upon those gentlemen whose knowledge of chemistry is such, but also whose practical mechanical skill is also great, which, when combined, the aid of science coupled with mechanical ingenuity will then be able to overcome much of the risk that has hitherto been the means of so many being sacrificed by explosion. That many of those explosions which daily occur arise from using *candles* and open lights, in a great measure by carelessness, and not from any defect of the principle of the safety lamp by Davy, I feel convinced, as I have stated before; if provided with perfect and complete gauze protectors, and only can they explode by being broken, or out of order in the gauze. Now we know that they will be so careless, even when they know that by their doing so their own life may be the sacrifice; still they heed not; fool-hardy, they rush on the very rock which ultimately becomes their own destruction, and often of many others^a.

Knowing these facts, I have pondered again and again, thinking how not only to overcome the carelessness of the miner, but also the natural risks of which the fire-damp is the greatest cause; and as this is a very important matter, and equally so as regards the safety of the miners and the value of the mines, in case of firing, I now beg to lay before the reader a plan of a lamp by which not only is all risk completely obviated, but almost universal safety to the miner and the mine ensured. That

^a See the Bilston explosion—using a common candle in place of a Davy lamp.

the choke and fire damp is easily perceived by the miner, and gives him ample warning in nine cases out of ten; we know that the gas keeps invariably at the top of the workings, where the stream of vital air is soonest affected, therefore the miner has only to fall flat on his face on the ground until it is past. Provided he cannot get away, of two evils he must choose the least; this is a fact we all know. Now the risk of explosion we also know arises from the ease with which they can open their lamps, and by taking off the gauze for smoking or such like; now we know that, in order to obviate it, I provide a lamp of such construction as that, while it derives its vital air to make it burn, it is so constructed that it cannot by any means be opened or removed, but placed upon the ground, it gives a better light directed also on the mine, where the workman can pursue his labour without risk or fear, and as he gets the quickest intelligence of the foul air, from the obstruction to his breathing, it must be obvious he may have a better chance of escape; at all events he is clear of explosion from his lamp, and from its construction it is equally certain nothing can occur to it from the position it is in, and if he likes at any instant he may put it out, when he fears the least danger. The lamps they are now using are generally hung up amidst the very element they are sure is most dangerous; while the other is quite below, and liable to be passed from the effective manner in which it is secured, while it gives a better light than six of those now in use. The utility of this simple arrangement is manifest as regards safety, and also the superior manner of giving light, and allowing the utmost freedom of the miner at his work, and preventing him entirely from either using or abusing it to his own or his neighbours' destruction. Nor is the safety the only improvement in this new lamp; the saving to the proprietor of the mine, and the quantity of the work, will be greater, from the miner's time not being occupied, as it too often is, by the working and hanging about of his lamp and the risk of falling down when working. There are many other advantages, which from the length of the present paper I must defer to my next communication, when I will give a drawing with description of the new safety lamp for lighting of mines.

(To be continued.)

PARLIAMENTARY PROCEEDINGS.

LORDS.

MARCH 30.—RAILWAY RESPONSIBILITY.—Lord Kinnaird assured the House that his present motion arose from no hostile feeling towards railway interests; but he thought that this class of public property should be under the direction of a responsible Board connected with the Government. An eminent engineer had recommended some legislative enactment, so as to have one general plan to connect all existing railway capital in this kingdom in one common stock or railway fund, paying due regard to the interests of the shareholders. He (Lord Kinnaird) would protect the interests of the public by encouraging competition. His proposal would be, that all the lines forming main arteries throughout the kingdom should be prohibited

from amalgamating. One great evil was the expense that was incurred by the promoters in procuring Acts of Parliament. The preparations of plans and books of reference, which involved a considerable expense, might be greatly improved. This evidence might be taken very much on affidavit. In one case 7,000 notices cost no less a sum than 9,000*l*. There was also an enormous expense in keeping a great number of witnesses in town from day to day, until they were required. But the expense was still greater in respect to private individuals who felt it necessary to oppose these bills. A friend of his was subject to the expense of 800*l*. or 1,000*l*. in opposing such bills. He should, therefore, move that a select committee be appointed:—

1. To take into consideration the best means of enforcing one uniform system of management of railroads in operation or to be constructed, and to secure the due fulfilment of the provisions of the acts of Parliament under which the companies have obtained their powers, whereby greater accommodation and safety may be insured to the public.

2. To take into consideration what means may best be adopted for diminishing the extravagant expenses attendant on obtaining acts of Parliament for legitimate and necessary undertakings, and at the same time for discouraging the formation of schemes got up for the mere purpose of speculation.

3. To consider what legislative measures could be framed to protect individuals from the injury they may sustain by the laying down lines of railway through their property, without subjecting them to the ruinous expense of opposing bills in Parliament.

The Earl of Dalhousie would not oppose the motion, though the noble lord had but imperfectly stated his case. No very beneficial system would result from the appointment of the committee; amalgamation bills were already looked after with the greatest scrutiny. After alluding to the insufficient authority of the late board in connexion with the Government, the noble lord said he was not prepared to support any plan, the effect of which would be to deprive Parliament of its exclusive power. He could not consent to give up any of the safeguards which protected property, for the purpose of saving expense to railway companies. He was, however, willing to acquiesce in any arrangement which would tend to simplify the proceedings consistently with the maintenance of these safeguards.—The Marquis of Breadalbane thought that such salutary control should be imposed as would not interfere with the due application of capital in private speculation. His surprise was that the convenience of the public had been so well provided for as on the great lines already constructed. In his opinion the public interests would be best consulted by allowing great companies to work the districts naturally marked out for them under the wholesome control of the legislature.—The Marquis of Londonderry dreaded the establishment of monopolies, and advocated the maintenance of competition as most conducive to the public interest.—Lord Wharncliffe said the object was one well deserving inquiry, and he regretted that the Government had not, in an early part of the session, come forward with a plan for the proper regulation of railways.—Lord Monteagle observed that there were cases in which the subscribers to railway schemes were anxious that those schemes should be abandoned, and yet, having entrusted the control of them to other hands, their lordships were in danger of having their time consumed in long investigations leading to no result, or, what was more formidable still, of being perhaps induced to sanction the commencement of railways which would be afterwards left in an imperfect and unfinished state. The public, he believed, laboured under the delusion that the subscribers to a railway scheme had no power to petition against their own scheme; he believed that it was perfectly competent to them to approach Parliament for the purpose of declaring their wish to depart from their original intention.—Lord Campbell said that the safety of railway travellers was important, and he hoped would be considered. Two bills relating to that question had been

passed in that House last session, but had been rejected in the other House, with the concurrence apparently of the Government, without reason. The bills to which he alluded were the bill for abolishing deodands, and the bill for making railway companies responsible for deaths by accidents caused by their own negligence. It would have been advisable that those bills should have been passed into law; and yet they had, as he had already stated, been rejected.—Lord Redesdale recommended Lord Campbell to reintroduce those bills this session. With respect to the appointment of a commission to undertake a part of the duties now undertaken by Parliament, under such an arrangement parties would be subject to the double expense of appearing before Parliament, and also before another tribunal.—Lord Campbell said he had just been informed that the law of Scotland gave redress in cases of accidents on railways from the neglect of companies. It appeared that in consequence of the neglect of the Glasgow and Edinburgh, the father of a family had been killed. An action had been brought by his widow and children, and the opinion of his hon. and learned friend, Mr. Rutherford, having been taken upon the subject, he declared that the company were clearly liable. The result was that they had compromised the action by paying to the family a sum of 2,000*l*. But if that accident had taken place in England the family would have had no redress.—The Earl of Dalhousie said that in the case to which his noble and learned friend had referred, not only had a sum of money been paid to the family, but the superintendent had been imprisoned for twelve months.—The motion was then agreed to.

The Earl of Dalhousie presented a petition from the bankers, merchants, manufacturers, and other inhabitants of Glasgow, praying their lordships to adopt measures to prevent the ruinous consequences of excessive railway speculation.—The Duke of Wellington would like to see some mode devised for the regulation of those railways already constructed, by which the convenience of the public might be well provided for. He begged leave to suggest, whether the common law could not be applied to these railway companies so as to confer on magistrates in the country some power over companies and their agents in different parts of the country.—Lord Hatherton said there could be no doubt that parties possessed the power of petitioning referred to by the noble lord (Monteagle); but he should be sorry if those parties were induced to believe that by petitioning they could relieve themselves from their responsibilities. The sooner the irresponsible parties to visionary schemes came forward to petition the House to be allowed to abandon their projects the better; there was no danger that such a course would be adopted by parties to *bond fide* schemes. In his opinion Parliament was competent to deal with all these undertakings, and no more injurious course could be adopted than for the Government to take the responsibility of suggesting any regulations. He doubted whether his noble friend would succeed in his purpose of confining all the railroads of the country to certain districts, and placing them under the control of a government Board. With respect to the preliminary inquiries, he should say that he did not see why the two Houses of Parliament should not refer to a commission all matters relating to the requirements of their Standing Orders. After such a commission had made a Report, they might themselves determine whether or not they should dispense with the Standing Orders.

APRIL 6.—PETITIONS BY SHAREHOLDERS AGAINST THEIR OWN BILLS.—Lord Monteagle said he had two petitions from shareholders in certain railways, who objected to the further progress of the bills to which they themselves had become parties. The public were under misapprehension in supposing that shareholders could not petition against a bill which they had been instrumental in promoting. If the circumstances had altered materially, and the shareholders who were originally in favour of a bill chose to retrace their steps, there was nothing in the forms of Parliament to prevent their objecting to further progress. If the statements contained in one of these petitions were correct, the parties had very good reason for

objecting to the progress of the bill in question. It was a petition from the subscribers to a proposed extension of the Midland Great Western of Ireland; the petition was signed by one the members for the city of London, and by some most respectable names connected with the city. They stated that, from the evidence before a select committee of the House of Lords, the capital for these works was not proved to be a *bonâ fide* subscription; also that, immediately before the depositing of the parliamentary contract, signatures had been obtained to it for very large sums, on which the subscribers themselves admitted that they had paid no deposits; and that, however responsible the parties might be, it was believed that they had no intention of subscribing to the amount of capital proposed. If this were true, it undoubtedly left the company without the means of executing their works. It seemed that these parties considered that they had no means of stating these facts to the committee. The other petition was from some shareholders in the Cork Extension Railway, who stated that an amalgamation with another company had taken place, contrary to their wishes and intentions; and they therefore prayed their Lordships' House not to pass the bill.

NEWRY, WARRENPOINT AND ROBSTREVOE.—The Earl of Ellenborough had a petition to present from the corporation of Newry, against a railway which proposed to cross the harbour. The consent of the Admiralty had been given, but, from what had since come to his lordship's knowledge, he was inclined to think that it would have been refused had they been in possession of all the facts. He therefore conceived the proper course would be to allow the bill to proceed and go to the other House, where it would also be necessary to prove the consent of the Admiralty to the line crossing the harbour. During the recess, the Admiralty Commissioner would again proceed to Newry, and make a fresh report. The subject was one of importance; for, by the removal of the bar at Carlingford Rock, the harbour of Newry might be rendered a perfect and secure harbour of refuge.—Lord Monteaigle objected to this course as inconsistent with propriety or the public service; no department of the Executive Government ought to have power to give effect or refuse assent to an Act of the imperial Legislature. The earlier the opinion of the Admiralty was expressed on this subject the better would it be for all parties; and their Lordships' House would not then be occupied a long time in considering a bill which might afterwards be rendered inoperative by the well-bestowed negative of the Board of Admiralty.—The Earl of Ellenborough said he had no objection to accept this recommendation; but the House must understand that the Board of Admiralty had now before them the report of their own engineer in favour; therefore the Board of Admiralty could hardly at present refuse their assent. He wished, during the recess, to inquire into the matter further; and an officer had been specially appointed for the purpose of making a full report of the facts on both sides.—The Earl of Rosebery, as chairman of the committee to whom the bill had been referred, thought that the best thing the House could do, under the peculiar circumstances, would be to suspend the further stages of the bill until the result of subsequent inquiry was laid before them.—The Marquis of Lansdowne suggested the propriety of the House having laid before them the memorial of the Chamber of Commerce of Limerick, addressed to the Board of Works, which showed unanswerable grounds for the interference of Parliament in this case. This memorial concurred with the recommendations of the Tidal Commissioners, and he would move for a return of that memorial.—Agreed to.

APRIL 7.—RAILWAYS AND SHAREHOLDERS.—The Earl of Dalhousie laid upon the table of the house a report from the railway department of the Lords. In presenting a report from the Board of Trade, he proceeded to draw attention to the propositions of the Government. He recalled to recollection the state of railway business within the last twelve

months and the number of bills which had been introduced at the close of 1844. In the last session of Parliament 248 railway bills were introduced, and at that time this was looked upon as a number utterly unprecedented. Speculation, however, had waxed more hot and fiery every day; it had pervaded every class, high and low, rich and poor, young and old, and it exerted its influence upon one sex as much as upon the other. The result was, before the 31st of December last, there had been provisionally registered upwards of 1400 schemes. On the 30th of November there had been deposited with the Board of Trade upwards of 800 plans. By the 31st of December that number was nearly 700. The attention of the Government had been at an early period directed to this subject; but it was not in the power of the Government to have come down to Parliament with any definite plan till there were facts necessary as guides. In order to save the time of Parliament, and also as a check upon the parties themselves, a friend of mine moved for the appointment of a committee to consider of the mode of disposing of the railway business, and I moved for a similar committee here. The committees sat for some weeks, and the number of schemes before Parliament were brought under their consideration, and the committee came to the determination that it was not expedient either to select particular bills or to restrict the free course of capital, that it would be acting upon an unsound principle to interfere with the free course of capital applicable to schemes of improvement; at the same time, a broad line of distinction is to be drawn, which is this,—it is a very different thing to interfere with the free power of disposing of capital, and to interfere with the disposal of capital in schemes where Parliament is asked to give special and large powers of carrying them into effect. Though no restriction should be imposed upon capital, arrangements may be made between the parties and both houses of Parliament. For some time past public attention has been directed to this subject, which has undergone much discussion. The result of that discussion has been brought under the consideration of Parliament, and proves one great evil that has resulted to trade and to the concerns themselves; that every description of, and all trades, have been injured; that the prices of materials of all kinds likely to be used in such works have been and will be still more enhanced, not only to these undertakings themselves, but to all others of a similar character. The prices of labour have also been greatly increased; but that increase is only of a temporary character, created by peculiar circumstances, and has tended more to the injury than to the substantial good or improvement of the condition of the working classes, by the very great demand for money which exists at this moment, and is likely to continue, and every other branch of trade, even when there is no direct connexion whatever with these undertakings, is cramped in its operations, and clogged in the enterprises in which it is usually engaged; and no one can doubt that this tightness in the money market is telling most severely upon the commercial community. As regards railways, it is not only those progressing towards the passing of their bills which suffer, but also those already in existence and incorporated. Even the old established companies find themselves, when desirous of adding to their wealth by the construction of new branches to the old undertaking, encompassed with difficulties; and this is still more the case with those companies who have very recently obtained powers and are only just beginning to carry their projects into effect. In Ireland matters are in a still worse state. Applications have been made to Her Majesty's Government, or, at any rate, representations have been made from the two which may be fairly considered the best and most promising lines in Ireland, setting forth that their undertakings are at a standstill. One of these was the Waterford and Limerick Railway, a line which I believe to be a most valuable undertaking—valuable not alone in a commercial point of view. It is the same line which the commission appointed in 1837 to inquire into that subject especially recommended; and yet that line is now at a standstill. The other railway to

which I have alluded is one connected with the town of Newry. Your lordships are now engaged, and will be engaged during the ensuing session, on Irish railway projects; many of these will be unopposed; many are making their way without difficulty or hindrance through Parliament. Her Majesty's Government desire that this should be the case, in the belief that the passing of these bills will be a great boon to the people of Ireland, as likely to afford that employment which is so requisite under existing circumstances; and yet all these objects will be defeated by the evils which I have pointed out. Not only will the promoters of these particular schemes find their wishes frustrated and their original calculations false, but it will be the means, by increasing the demand for money, of preventing established companies carrying their works into execution; and this last consideration is a most important one, so far as the question of giving employment is concerned, for the older companies are on the spot, prepared, if permitted, to commence, while the other newer lines cannot for some time to come be in that condition. As we know, the progress of a railway bill through Parliament has always been watched with anxiety; has been the means of stimulating the hopes of those directly engaged in such a bill, and the expectations of others desirous of being connected with it; consequently that invariably for that period the value of the stock has increased. But precisely the contrary is the fact now. I have been distinctly informed by parties whose information is to be relied upon, and whose interests are affected by the results, that this session, so altered are the circumstances,—just in proportion as railway schemes appear to be favourably progressing through Parliament, and as they have a prospect of success, exactly in that proportion does the value of the stock fall in the market. In Scotland not only is this description of railway affairs correct, but it is also the fact that there is a most earnest desire on the part of all those engaged in these undertakings to free themselves from them—to disconnect themselves altogether, for the present, from railway enterprise. It would be most advantageous, that when those who, having engaged in these concerns, subsequently see good reason to change their minds, and to desire to escape from the trammels with which they are surrounded, they should have the opportunity afforded to them of repairing the error; such persons now applying to Parliament for facilities by which to enfranchise themselves, it is not only the policy, but it is also, strictly, the duty of Parliament, to offer every facility in its power for the effecting, in a legitimate manner, of that object. There is, it is true, in existence an act giving powers for the winding up of the affairs of joint stock companies, but that act applies only to companies which have already obtained their corporate capacity. A railway company is called so commonly even before it gets its act, but it is no more, in reality, than a simple partition, and it is not in the power of those who are of that partnership to free themselves without the consent of every member and every partner. It is the intention of Her Majesty's Government, as early as possible after the Easter recess, to introduce a bill the object of which shall be to enable railway companies who are now before Parliament, and have not obtained their corporate capacity, to wind up their affairs, with a view of putting an end to the undertaking to carry out which they were associated. I will, as shortly as possible, and avoiding detail, lay before your lordships this proposition, the principle upon which we desire to legislate as regards railways, and the main objects to which our efforts will be directed. We propose, by a machinery to be provided, that means shall be given to those who are the actual shareholders of stock in railway companies to call a meeting of the proprietors, and determine whether the affairs of that company shall be wound up or not: that that meeting shall decide by a majority—the proportion of numbers probably being the number of shares possessed—whether the company shall be wound up or not. If the proposition to dissolve shall be negatived, the bill, of course, is to be proceeded with: if the determination shall be to wind up, then a certain machinery will be applied; an official assignee,

as it may be called, will act as trustee of the funds of that company to satisfy all the demands of the creditors on that fund ; and, after every creditor shall be satisfied, the remaining sum will be divided among those who are entitled to a share of the deposits. If there should be a deficit, which is not likely to occur, but is a possible event, it is not proposed that there shall be any exemption to the parties now by law liable for the payment of all the expenses that may be incurred. But it is clear that a scheme of this nature requires some time for formation, and that some little time must elapse before such a measure as that contemplated can pass ; and in the mean time the railway measures before Parliament are proceeding and in progress through the two houses. I believe that many of these measures are of the character I have described to your lordships ; many of the shareholders in many of these companies would have been desirous of such a machinery as would enable them to wind up their affairs ; but as the shareholders are without any power whatever of staying the progress of such bills, there has been no step taken. To remedy this evil, it is proposed that a resolution be passed in both houses of Parliament, that if a petition shall be presented, signed by a majority of the holders of the shares in any given undertaking, praying Parliament to suspend the progress of that undertaking until such time as the measure giving facilities for the winding up of the railway affairs has been adopted, then the progress of such undertaking shall be stayed accordingly. There are some few bills which have already come from the other house up to your lordships' house and they will come under the operation of such a resolution of this house ; and those which have commenced in this house, and are going towards the other, with those in the other house which have not passed through all the stages, will be equally affected by the resolutions of the other house. The principle is, that facilities should be given to railway companies to wind up their affairs as soon as possible after a determination to that effect has been come to ; that that power shall be given to those actually interested in the funds of the company ; that such a course shall be decided upon only by a proportion of shareholders to be stated in the bill ; and at such determination ample security shall be taken for the safe custody of the funds of the company, for the liquidation of every substantiated claim, and for the return of the residue to those possessing the right to receive it. There is also included the preservation of the liabilities of those who are now liable. And also with respect to such bills in progress through Parliament, and expected to be passed altogether before the bill I describe shall have the consent of the Crown, and, consequently, before the shareholders have an opportunity of availing themselves of the power which they now have not, a resolution will be passed that, on a petition being presented, showing that a large majority of those interested in the concern are desirous of availing themselves of the provisions of this bill, the progress of the particular railway bill shall be stayed—not rejected—until such time as the required opportunity presents itself. It is not necessary that I should enlarge more upon the subject. As soon after the Easter recess as possible, I shall have the honour of submitting the bill to your lordships, and we shall then be enabled to discuss the provisions in detail.

Lord Monteagle was of opinion that some proposition which should correct the evils at present influencing the railway system had been called for ; and he was glad to see that Her Majesty's Government were not insensible to the necessity which existed for some legislative interference. The facts detailed by the noble lord, and the descriptions given of the difficulties and danger which surrounded railway companies, readily accounted for the state of things of which all were aware out of doors. He considered that an effective measure had, at last, been introduced ; but to the principle upon which it was based he must offer some opposition ; and to render the bill just and satisfactory, many objections which he now saw would have to be removed. He thought the measure should have been made to take effect from a certain day, as a resolution for the reduction of a duty took effect from the date of

the passing the resolution. He considered a company that could not carry out its undertaking was a great injury to the community. An unfinished railroad was the greatest nuisance that could be inflicted on the country. In 1824, when the tide of speculation was high, when the "bore," was running up the river, as at the present time, many of the schemes were foreign ones, and the money embarked in the Golconda Pearl Fishery, or the Sandwich Islands Sandal-wood Company, was simply lost and wasted. But in the case of an unfinished railroad, the agricultural districts would be left with a great dry ditch cut through the centre of the country, without rails, and with no possibility of completing the plan. Then in what a position would the landholders along the line be placed? For three years they would have the compulsory powers of the act hanging over their heads, which might deprive them of the most valuable part of their estates. There was one thing which the proposal of the present measure rendered necessary: it was, that the house should stop the progress of all bills then pending till the bill had been introduced. He must not be told that they should send these bills to the lower house, leaving to that house the task of seeking, and the duty of applying, a remedial measure; their lordships could not tell what might happen in the other house of Parliament; their lordships were the masters of their own proceedings, and they were bound to give the public all the protection their legislation could afford, as the other house was bound to give them the protection of theirs. They ought not to take any definite step upon any railway bill till they were in possession of the bill of Her Majesty's Government. One part of the scheme, he thought, required more attention; it proposed that a railway bill should be suspended upon the petition of a majority of the shareholders; he would ask, how could their lordships know whether those who signed such a petition were genuine shareholders at that time?

Lord Kinnaird thought it would have been better if the proposition of the Government had been introduced two or three days earlier, because it could then have been discussed by their lordships. He approved of the plan generally; but, had there been another day before them, he would have made a suggestion as to whether the house had not at present a power of applying a remedy, by extending one of the standing orders of the house.

Lord Wharncliffe expressed his satisfaction with the proposal made by the noble lord (the Earl of Dalhousie).

The Earl of Dalhousie would take care that no bill should receive the force of law till such a clause was inserted. As to the question, whether it was the intention of Government to propose any standing order of the nature stated by the noble lord, he had intended distinctly to express such intention. A resolution was to be proposed in the other house of Parliament that no further stage should be taken in any railway bill until the 27th of April. It was his intention to submit to their lordships on Thursday after the recess a resolution, the object of which should be that bills passing through Parliament at the time when the bill was adopted for enabling parties to wind up the affairs of railway copartneries should be subject to the provisions of that bill, and upon persons expressing by petition their desire that the progress of a railway bill should be stayed, it should be so till the bill which it was proposed to introduce should come into operation. As to the blame thrown on Her Majesty's Government for not having proposed at an earlier period a plan applicable to all railway bills, they met frequently in September and October to consider the subject, and resolved upon a plan for selecting railways to which prior consideration should be given by the two houses of Parliament. Much labour was taken in classifying the whole 800 schemes before the Board of Trade; and it was a matter of notoriety that the committee of the other house was against any restriction; and any resolution to which their lordships might have come under such circumstances would have proved a mockery.

The Marquis of Lansdowne wished to know what his noble friend (the

Earl of Dalhousie) proposed to do in reference to the bills now on the table, and waiting for a second reading ?

The Earl of Dalhousie thought the resolution of the other house not to take any step with any railway bill till the 27th of April would have operated as a sufficient check. But he should now give notice of his intention to move, after the recess, a resolution similar to that of the House of Commons, postponing the further progress of railway bills till the 27th of April.

APRIL 23.—LEGISLATION AND NEW SESSIONAL ORDER.—Lord Dalhousie brought forward a bill of which he had given notice, for the improvement of railway legislation. He referred to the number of railway companies which had deposited their plans with the Board of Trade in November last. There were then provisionally registered a number of joint-stock companies, and of them between 1,200 and 1,300 railway companies, and of these there had been deposited on November 13th, 800 plans; and at the last stage in these proceedings—that is, on December 31—the number was reduced somewhere below 700. His lordship went on to remark that it was thought that the necessity for deposits would sufficiently test the capacity of the various companies to carry out their plans efficiently, and tend greatly to reduce the number of bills, but that it had done nothing of the kind; upwards of 15,000,000*l.* sterling having been paid on deposits. It had also been anticipated that great numbers of these schemes would be defeated by the inability to comply with the Standing Orders of the House, but so far from this having been the case, the number reduced by that test had not exceeded twenty-eight. In the meantime the simultaneous withdrawal of so large a sum from circulation had had the effect of hampering every other description of commercial enterprise, and had given rise to the loudest complaints, not merely from parties engaged in other branches of trade, but from persons directly and immediately interested in railroad projects themselves. The present prices of stock of the respective companies afforded conclusive proof of the correctness of his assertion. In ordinary speculations their apparent success in their progress through Parliament invariably tended to enhance the value of the stock, but in the case of railways the result now was altogether the reverse, for in proportion to the progress of a scheme through Parliament was the depreciation of the value of its shares. Under these circumstances it was desirable that an opportunity should be given to parties engaged in such enterprises, to relieve themselves from all responsibility in regard to them, which it was not at present in their power to do; for though means had been supplied by the law for winding up the affairs of projects which had received the sanction of Parliament, no such facility had been provided for the satisfactory dissolution of inchoate companies, which could only be wound up by the unanimous consent of the shareholders. The object of the bill then before the House was to enable a company to wind up its affairs, and dissolve, if the holders of one-third of the shares desired so to do. Lord Dalhousie then described in detail the provisions of the bill. The directors of companies would be enabled by them to call meetings for the purpose of winding up their affairs, and in the event of their declining, they would be constrained, on a requisition signed by five shareholders, so to do. If it should appear at such meeting that a clear majority of the stock, whether represented by proxy or in person, was in favour of a dissolution, the company would be *ipso facto* dissolved. His lordship enumerated other provisions to enable parties at a distance to verify their scrip; to give proper publicity to the meetings; to elect chairmen; to appoint scrutineers; and to regulate the number (one for every share up to ten, and an additional vote for every five shares up to 100) of the votes. None but the actual holders of stock are to be allowed to vote, and if three-fifths of the whole stock represented at a meeting are for the dissolution of a company, that company is to be dissolved; provided always that the stock so represented be not less than one-third of the entire stock of the company. It was, how-

ever, intended to avoid as much as possible any alteration of existing liabilities. If a company, on its dissolution, had any surplus, it would be divided—and if there were none, those who were liable under the present law would have to make up the deficiency. As a considerable time must elapse before the bill could become a law, he (Lord Dalhousie) proposed the same sessional orders as proposed by Sir R. Peel for the purpose of meeting the evil.—Lord Brougham complimented Lord Dalhousie on his exposition of his measure, in the principle of which he agreed. He would, however, defer his final opinion of it until he had given it the most careful consideration. He felt the greatest satisfaction that a restriction was likely to be imposed on the mania for speculation which had been going on among all classes of society, so little to the credit of the country, during the last two years. The bill might, he believed it would, soon pass their Lordships' House; but who was to say that it might not meet with great delay in another place? Their Lordships' House was one well adapted to the great business of legislation—action; but he was afraid such might not be predicated of another place. That railway house—that large railway company could discuss a question for twelve days without intermission—they could make speeches by the score, and he supposed they commanded attention by the hour, but hitherto they had shown an utter incapacity to bring anything to a close. He supposed it was to be attributed to the bad constitution of that railway body.—The Duke of Richmond: It is the fault of the directors.—Lord Brougham: No, no; he was not to be caught that way—it was the fault of that railway house at large—it was so constituted that they could debate for ever—could discuss without end, but as for coming to any conclusion it seemed to be out of the question.—After a few words from the Earls of Wicklow and Eglintoun, objecting to particular provisions of the bill; from the Marquis of Clanricarde, objecting to its application to Ireland; and from the Earl of Ashburton and Lord Campbell, approving of the measure, the Earl of Dalhousie replied to the objections which had been offered, and the inquiries that had been made; and concluded by recapitulating the resolutions which he proposed to bring under their Lordships' consideration this evening.—The bill was then read a first time, and the sessional orders directed to be taken into consideration on Monday evening.

APRIL 27.—RAILWAYS STANDING ORDERS.—The Earl of Dalhousie rose to submit the resolutions of which he had given notice last Thursday. It was probably known to noble lords, that since he had given notice of his motion the other House had agreed to certain resolutions similar in terms to those he had suggested; but, as certain additions had been made to the resolutions on that occasion, and as it was desirable, as far as possible, to make the resolutions of the two Houses identical, he would move the adoption of the alterations made elsewhere, which, with one exception, were of importance. The first related to the copy of the bill to be submitted to the shareholders, and as there was some doubt whether that must be the bill as amended by committee, he would add the words, "a copy of the bill in the state in which it may have been at the time." Then there were many who had paid their deposits and held the bankers' receipts, which would entitle them to scrip, but had not signed the deed, waiting till the bill had passed to sign the new deed; these were responsible persons, and he would extend the right of voting to them, but their names must appear on the receipts. With respect to the Scotch bills, he would require the advertisement to be in the *Edinburgh Gazette*, and would substitute the insertion of the advertisement twice in each of the three Edinburgh papers for the advertisement three times in each of two Edinburgh papers. At the end of the 5th resolution he would introduce words to meet the case of branches to be made by old companies, the shares in which were allotted to new shareholders on the understanding that if an act were obtained they should be subsequently incorporated with the old company. The resolutions, as amended, would therefore stand thus:—

"I. Resolved, that this House will not read a third time any bill to empower any company (whether intended to be incorporated by such bill or already incorporated by Act of Parliament) to construct a railway, unless three clear days before the third reading there shall have been deposited at the office of the Clerk of the Parliament, there to be open to the inspection of all parties, a certificate signed and authenticated in manner hereinafter mentioned, and comprising the particulars hereinafter expressed, and stating the following facts, viz:—

"1. That a copy of the bill in the state in which it may have been at the time was submitted to the consideration of a meeting of the holders of scrip, or of bankers' receipts for scrip, of the company, or (in case of a company already incorporated) of the shareholders or stockholders of the company, specially called for that purpose.

"2. That such meeting was called by advertisements, inserted once in each of two consecutive weeks in the *London Gazette* (if the railway be an English railway), or in the *London and Edinburgh Gazettes* (if the railway be a Scotch railway), or in the *London and Dublin Gazettes* (if the railway be an Irish railway), and in each case in at least three London daily newspapers, and not less than three times in each such paper, in each of such two consecutive weeks; and in case the railway be a Scotch railway, not less than twice in each of three Edinburgh newspapers in each of such two consecutive weeks; and in case the railway be an Irish railway, not less than three times in each of two Dublin daily newspapers in each of such two consecutive weeks.

"3. In the case of the company being intended to be incorporated by the bill,—That such meeting was constituted of persons producing thereat scrip, or bankers' receipts for scrip, of the company, representing not less than one-third part of the whole capital proposed to be raised by the company under the bill (such scrip having been actually issued, or the deposits in respect thereof having been paid before the 31st of March in the present year).

"4. In the case of the company being already incorporated,—That such meeting was held, except so far as is herein otherwise provided, according to the constitution of the company, and was constituted of shareholders or stockholders thereof competent to vote at the ordinary meetings of the company, and representing, either personally or as proxies, not less than one-third part of the whole capital or stock of the company.

"5. That at such meeting the bill was approved of by persons producing thereat scrip, or bankers' receipts for scrip, equal to at least three-fifths of the total amount of scrip, or bankers' receipts for scrip, produced at the meeting; or, in the case of a company already incorporated, by three-fifths at least of the meeting, the votes being given and computed according to the constitution of the company.

"6. That those cases in which the bill is promoted by an incorporated company, but the parties interested are holders of scrip which it is proposed shall be converted into shares or stock, or otherwise become portion of the interest of the incorporated company on the passing of the bill, and contingently only on that event, shall, for the purposes of this resolution, be deemed to be cases of companies not yet incorporated.

"II. Resolved, that for the purposes of this resolution it shall be competent for the chairman of any meeting called in pursuance thereof, in the event of the above prescribed quorum of scrip, shares, or stock (as the case may be) not being represented at such meeting, to cause the votes of the persons constituting the said meeting, approving or not approving of the bill, to be taken and recorded, and then to adjourn the same to some day, hour, and place to be declared by the chairman, such day not being less than three days, and not more than one week, from the original day of meeting, and such day, hour, and place being, in the meantime, advertised twice in each of three London daily newspapers, or in the *Edinburgh* or *Dublin* news-

papers, as above directed in the case of Scotch or Irish railways; and at such adjourned meeting it shall also be competent to the chairman thereof to cause to be taken and recorded the votes of such of the persons constituting the same as have not voted at the original meeting; and the total amount of votes given at the original and adjourned meeting shall be received as if given at one and the same meeting.

"III. Resolved, that such certificate shall also comprise, in a tabular form, the following particulars:—

"1. The day, time, and place of the meeting, and of the adjourned meeting (if any).

"2. The dates of insertion of the advertisements for the meeting, and the names of the newspapers in which they were inserted.

"3. The names and addresses of the persons producing scrip, or bankers' receipts for scrip, at the meeting, according to the statements of such persons.

"Or, in case of a company already incorporated,

"The names and addresses of the shareholders, or stockholders, present at the meeting, according to the register-book of names and addresses.

"4. The denoting numbers, if any, of the scrip, and in the case of the bankers' receipts, the names of the persons from whom the deposit is therein stated to be received, and the amount of the scrip and receipts respectively produced by the persons so producing the same at the meeting.

"Or, in case of a company already incorporated,

"The respective amounts of shares or stock held or represented by the shareholders or stockholders attending the meeting.

"5. The fact of the approval or non-approval of the bill (as the case may be) by the several persons producing scrip or bankers' receipts at the meeting, or by the several shareholders or stockholders attending the meeting.

"6. The total amount of scrip and bankers' receipts produced at such meeting, and the amount thereof produced by the persons approving of the bill.

"Or, in the case of a company already incorporated,

"The total amount of shares or stock represented, either in person or by proxy, at the meeting, and the amount thereof so represented by persons approving of the bill.

"7. The total amount of the capital proposed to be raised by the company under the bill.

"Or, in case of a company already incorporated,

"The total amount of the capital or stock of such company.

"IV. Resolved, that such certificate shall be signed by the chairman of the meeting and by one of the solicitors of the company; and the authenticity of such certificate shall be verified, by the signature of the Parliamentary agent depositing the same."

As the Government had no wish to offer any objection, or throw any unnecessary obstruction in the way of railroad bills, especially those which were Irish, he intimated his intention of moving that those railway bills which now stood for a third reading should not come under the operation of those resolutions which he had felt it his duty to bring under the notice of the House. This arrangement, however, would not affect the question which his noble friend on the cross-bench had submitted to their Lordships. The noble earl concluded by moving the resolutions as above stated, with the exception regarding bills that were already ripe for a third reading.

Lord Montague wished to know if the exception just moved by the noble earl was intended to apply as if the amendments had never been proposed? As he had risen, he wished to say that he did not think that alterations in sessional orders ought to be made in matters of importance without notice. He should not at present say more as to the question of making exceptions in favour of bills now ripe for a third reading; but, he would ask the House, was it fitting that they should be thus taken by surprise and called upon to

affirm certain resolutions favourable to a certain class of bills ? The House, he conceived, had no right to relax their regulations in the hope or expectation of effecting some other proceeding in another place. To do so was contrary to Parliamentary practice, and it appeared to him to be inconsistent with the dignity of their Lordships' House. They had a right to take whatever course appeared to them the most just and expedient, without resting elsewhere. He objected to relaxing regulations merely for the purpose of meeting particular cases, and for the purpose of passing certain bills because they had reached a particular stage. With regard to the general question before the House, he did think it would do good so far as it went, but it was to be remembered that this railway system was an affair of great extent—that it affected property to an enormous amount. Railway bills gave not merely the right of pre-emption, but of compulsory purchase, and this power might be kept hanging for a long time over a vast amount of property. This truth would be more evident to the minds of noble lords when they remembered that many bills were obtained, not with the view of immediately making a railway, but for the purpose, as it was called, of occupying the ground. Thus, if an existing company obtained a bill for a branch that might interfere with a competing line ; but yet the bill for the branch might be permitted to remain a dead letter for an indefinite period of time. It was well known that many bills passed in antecedent sessions had not yet been carried into active operation ; that, in fact, under those bills no step had yet been taken. It was well known to all their Lordships that bills were obtained in the hope of acquiring profits, which present circumstances afforded no prospect of realizing, or for the purpose of preventing the formation of other lines. This was a state of things which demanded the careful and anxious attention of Parliament, and what he feared was, that the House was shrinking from the performance of its duty. It was said, wait for deposits ; wait to let the bills go before the Standing Orders Committee, and see how they will be there disposed of—avoid anything, and wait for anything, in order to avoid the performance of a disagreeable duty. Again, when they were called upon to deal with particular cases, they should recollect that it formed a part of their duty to take a large and comprehensive view of the whole railway system. For example, a committee of that House was called upon to consider a particular bill ; they had there but a single and individual case to deal with. They might consider the railway before them in a very obvious way, namely, as it affected the military defence of the country. It might be a railway from Portsmouth to London, which would be a very important one in a military point of view ; but an examination into the merits of that railway would throw no light upon lines running to Dover, Harwich, or Plymouth. He regretted, therefore, that they were not in a situation to take a large and general view of the whole subject. It was well known, that under present circumstances, an unopposed bill passed as a matter of course ; but was that right ? Was not the public a party deeply interested in the result ? It appeared to him to be the part of the Government, or of the legislating power, to take some more general, some more able, and, he would add, some more impartial view of the subject, than had yet been taken. Every one felt that the present system was not defensible, and therefore, instead of adhering to it, they should endeavour to reform it ; and above all things they should not attempt to shift the responsibility off themselves. He further thought that the House had a right to complain that propositions of this kind had not much sooner been brought under their consideration. He would suppose that there was a company about to be formed with 1,000 shares, that the directors issued 500 of these to the public, and reserved 500 ; that the allottees paid their deposits, and were *bonâ fide* scripholders : the directors might then transfer their shares to parties whose votes would at once overwhelm the independent scripholders, and so carry the bill contrary to their wishes. He therefore thought there was great ground of complaint that the propositions had not been sooner

brought under the notice of Parliament, affecting, as they did, so materially the most important improvement that science and Providence had conferred upon the world within the memory of any man now living.

The Marquis of Clanricarde thought it a great misfortune that the executive Government had not attended more directly to this matter at an early period, and that it had left it too much to committees of both Houses, who were quite unable to take a comprehensive view of the whole system, and give a minute examination to the subject. He agreed entirely with the resolutions proposed by the noble earl, and with respect to an objection of his noble friend (Lord Monteaale), he had understood that a proposition had been adopted in another place which met the objection, namely, that at the meeting there was to be a certificate that the scrip had been purchased prior to the 31st of March, or before the annunciation of the scheme of restraint. But, though he agreed with the resolutions, he did not at all agree in the new order—that bills standing for the third reading, and on their way to the House of Commons, should not be subject to the operation of the Orders. He agreed with his noble friend that if the Orders were to apply to any bills they should apply to all. The result of the present interference would be, that they would stop great works, which were connected with the great communications of the country, and if they did delay those works, the executive branch of the Government ought to have had some mode of carrying them out, and to execute the works itself. He was convinced, considering what the other House of Parliament had done, their Lordships would agree to the propositions of the noble earl. He thought with his noble friend, that it would have been better if they had begun before, and particularly in Ireland. Some attempts had been made under the board over which the noble earl so ably presided, and no one could be more impressed than he (Lord Clanricarde) was, with the great ability and industry with which the noble earl had applied himself to the subject, (hear, hear); the country was well aware of his merits; but the advantage which had resulted from the labours of the board had been little or nothing, and if he were to go into an examination of the bills on their Lordships' table, he could show that the committees of the two Houses had taken different views from that board, without possessing the same means of inquiry.

The Duke of Richmond said he agreed with the noble marquis, and with the resolutions, and he thought that if it had not been for the Government throwing the noble earl overboard, and abandoning all the views of the board, much of the evil they had to provide against would have been avoided.

Lord Ashburton (who spoke in a very low tone) said, if a greater number of railway bills were introduced than the means of the country could support, competing with one another in the money-market and in the labour-market, instead of promoting the advantage of the country, they would do just the contrary. Till their Lordships could understand what number of bills were likely to fall to the ground, they could not come to the conclusion what number could be safely proceeded with. Even if there was no collusion, there would be a greater mass of these undertakings than the means of the country could bear, and which would interfere with all the legitimate markets of the country. They had begun the present session with the principle of leaving the parties alone as the best judges of their own interests; but many of these parties, especially in respect to Irish roads, were incapable of forming a judgment; they were mere children. Nothing could be more unfair than to charge this want of foresight upon the Government. The Committee of the Board of Trade had adopted the most prudent course in classifying the schemes and laying down rules applicable to them. However, their system was abandoned, and the principle adopted seemed to be, that we could not too far extend the improvement of communications consistently with the means and resources of the country. But it was soon found that the interest of money increased, and the public

began to open their eyes, and looked with astonishment upon the amount proposed to be invested in these undertakings. When they talked of 100,000,000*l.* or of 200,000,000*l.*, they might as well talk of 2,000,000,000*l.*; it was not in the country, and there might be a panic, of which there had been several instances in his recollection, that would do infinite mischief.

Lord Redesdale considered that it was a question whether, after a bill had passed through committee, the promoters, who had previously decided on winding up, would not then, the bill having undergone alterations, be disposed to go on. (Hear, hear.) The process of passing through committee might give a very different appearance to a railway project; and it was right that in such a state it should finally be judged of. He, however, considered that the subject was involved in all sorts of difficulties, and he was very doubtful if the proposed remedies would adequately meet the evil. He was strongly of opinion that if they had in the first instance given support to the admirable reports of the Board of Trade, they would have found themselves in a very different and certainly a better position. (Hear, hear.) Every one now acknowledged the excellence of those reports, and every one regretted they had not more fully been supported; but it had been thought proper to ridicule and to oppose them, and they had consequently fallen to the ground. He did not wonder, seeing that that had been the case, that the noble earl (the Earl of Dalhousie) had said "he would have nothing more to do with the matter." (Laughter.) And he was quite right, for his labour had been completely thrown away. He, (Lord Redesdale,) however, thought that there were still available the means by which they might prevent effectually the recurrence of so pernicious a system as that the results of which were now under consideration. He did not see why the whole capital of a railway should not be subscribed in shares—why it should not be insisted upon that the whole amount required should be absolutely produced, instead of two-thirds of it. (Hear, hear.)

The Earl of Radnor looked upon the sessional order only in one light—as introduced for the purpose of enabling persons to get out of the scrape into which they had got. ("Hear, hear," from the Duke of Wellington.) He objected to the principle of Parliament doing anything of the sort, and he objected to it because Parliament was about to stultify itself in the most unequivocal manner. Parliament had laid down rules by which to regulate the introduction of railway schemes. Parliament had pointed out to railway promoters the steps which they had to take; those rules had been obeyed, and those steps had been taken; and now, because such parties had very foolishly entered into certain bargains, Parliament was about to go out of its way to relieve them from their reckless improvidence.

Earl Fitzwilliam believed that the object of the order was not solely to relieve certain parties from their self-imposed difficulties; the ultimate object was to diminish the number of railway schemes that were to be brought before Parliament during the session. He thought, however, that that order would appear as a satire upon their past legislation, and upon the conduct of Parliament and the executive Government in regard to railways. (Hear.) He further considered that the true ends of justice would not be answered by what was proposed to be applied; for if they took, as an example, 20 schemes, 11 of which were withdrawn, and 9 of which were decided to go on, they could by no means be assured that the 9 were the best lines, or that the 11 had been treated according to their merits. (Hear, hear.) The exact contrary might be the case; and even if they permitted all those bills to proceed which had complied with the stipulated order, they might, eventually, discover they had passed too many. It was highly desirable they should know what amount of capital it was, the outlay of which they would be called upon to sanction in the session; and with this object he begged to give notice that he would, to-morrow, move "for the estimates deposited of all railway schemes brought before Parliament during the present year." He should view with great pleasure the instituting of some au-

thority on railway matters analogous in construction and principle to the Board of Trade. The whole railway system was of great national importance, and it was incumbent on the Government or Parliament to form some authoritative board (hear, hear), under which the system ought to be placed. That board should have a staff of surveyors and engineers, above all suspicion, under its control; the country ought to be surveyed by the Government, and upon that survey the lines ought to be laid down.

The Earl of Dalhousie had felt great satisfaction in finding that the object of the resolutions, and the main outline of the plan adopted by the Government, had obtained the approbation of their Lordships.

The resolutions were then agreed to, and their Lordships adjourned.

The House of Lords select committee on railways, nominated on Tuesday evening, consists of the following peers:—The Lord President, the Lord Privy Seal, the Marquis of Lansdowne, the Marquis of Clanricarde, the Marquis of Breadalbane, the Earl of Shaftesbury, the Earl of Clarendon, the Lord Bishop of Hereford, Lord Beaumont, Lord Lilford, Lord Redesdale, Lord Ardrossan, Lord Dalhousie, Lord Wharnccliffe, Lord Rosebery, Lord Rosbie, Lord Ashburton, Lord Hatherton, and Lord Monteagle. This committee is appointed to meet on Thursday, the 23rd of April, at two o'clock, and to appoint its own chairman, leave being likewise given to the committee to report from time to time. The House the same evening made a further order, to the effect that the evidence taken before this select committee from time to time be printed for the use of the members of the House, but that no copies be delivered, except to the committee, until further orders.

COMMONS.

APRIL 1.—DEPOSITS.—Mr. Moffatt said that, in moving the second reading of this bill, he should not trouble the House with any remarks, further than to say that the bill proposed to remedy the great inconveniences arising from the present system of paying railway deposits into the office of the Accountant-General. In many cases he knew that persons who had invested their money in the funds had been obliged to convert their securities into money again, and that too often at a very great loss from the transaction. The proposed bill would remedy that, by enabling the deposits to be paid by the 3 per cent. consolidated or the 3 per cent. reduced annuities, exchequer bills, or other government securities; and the bill provided that the payment should be made into the Bank of England, instead of into the Accountant-General's office, as at present.—The Chancellor of the Exchequer would not object to the second reading, as some amendments might be introduced in committee. He should propose to alter the provisions for paying into the Bank of England, because, in case of disputes and a suit in chancery being the consequence, it would be unfair to subject the Bank to the expenses of such a suit. He should suggest that in future the money should be paid to the Accountant-General of the Court of Chancery as heretofore, giving that functionary the power to take Exchequer bills or other government securities instead of money.—In answer to Lord J. Russell, the Chancellor of the Exchequer said that the clerk of the private bill office should receive notice of the manner in which the parties proposed to make their investment, and then his certificate should be given to the parties.—Mr. W. Collett thought that the bill of the hon. gentleman opposite was a good bill as it stood, and he could see no reason for introducing any amendments. He thought that a more concise or better bill had never been introduced into that House. The loss which had arisen from the system had amounted, he would venture to say, to many hundreds of thousands of pounds, without benefiting any one. The machinery was most cumbersome and wholly unsuited, and as soon as it was got rid of, the country would take

it as a great boon, and railway speculators would hail it a greater boon still.—The bill was then read a second time, and ordered to be committed to-morrow.

APRIL 2.—FARES ON RAILWAYS.—Lord G. Somerset moved—"That every committee on a railway bill shall fix the tolls, and shall determine the maximum rates of charge for the conveyance of passengers (with a due amount of luggage) and of goods on such railway, and such rates of charge shall include the tolls, and the costs of locomotive power and every other expense connected with the conveyance of passengers (with a due amount of luggage) and of goods upon such railway; but if the committee shall not deem it expedient to determine such maximum rates of charge, a special Report, explanatory of the grounds of their omitting so to do, shall be made to the House, which special Report, shall accompany the Report of the Bill." Agreed to. Also, "That the following clause be inserted in all railway bills passing through this House:—And be it further enacted, that nothing herein contained shall be deemed or construed to exempt the railway by this or the said recited acts authorized to be made from the provisions of any general act relating to such bills, or of any general act relating to railways, which may hereafter pass during this or any future session of Parliament, or from any future revision and alteration, under the authority of Parliament, of the maximum rates of fares and charges authorized by this act." The motion was agreed to.—**DISSOLUTION OF COMPANIES.**—Mr. Hudson gave notice that he should move—"That a clause should be inserted in all railway acts authorizing registered shareholders at a meeting called for the purpose of dissolution, at which meeting three-fifths of the registered proprietors shall be present, either personally or by proxy, shall be enabled to dissolve, having given full compensation to all landowners for any losses which they may have sustained from the operation of the Act."

APRIL 3.—AMENDMENT OF STANDING ORDERS.—Mr. Estcourt moved that the 135th Standing Order be amended, by omitting the words "agents for the bill," and inserting in lieu thereof, the words "clerk to the committee of selection."—Agreed to.—**INSTRUCTIONS TO THE COMMITTEE OF SELECTION.**—Mr. Estcourt moved that it be an instruction to the committee of selection to fix Tuesday, the 7th day of this instant April, for holding the first sitting of the committee on the Chard Canal Railway Bill, and of that on the Bridgewater and Taunton Canal, Railway and Harbour Bill. And that it be an instruction to such committees to hear any petitions against either of such bills, although their respective petitions shall not have been presented to this House three clear days before the day appointed for the first meeting of such committees, provided that such petitions shall have been so presented before Tuesday, the said 7th day of April. After a few words from Lord H. Vane in approbation of the motion, it was agreed to.

—**CALEDONIAN EXTENSION.**—Mr. Hawes, on bringing up the Report from the committee on the petition for leave to introduce the Caledonian Extension Railway Bill, moved:—"That the Report be referred back to the said committee to reconsider the same, with an instruction to such committee, that they do entertain the petition of W. M. Alexander and others, presented to the House on the 13th day of February last, and do hear the petitioners by their agents and witnesses on the allegations therein contained." The hon. gentleman contended that the petition had been duly presented, engrossed, and referred to the committee in sufficient time to be considered, and that it was through an error that the committee had refused to hear the allegations.—Capt. Jones, as chairman of the committee, begged to say that the committee had entertained the petition of W. M. Alexander and others; but that another petition from the same person having been subsequently brought before them, they had refused to go again into the same subject.—Mr. Hawes explained that there were two petitions, one from W. M. Alexander alone, and the other from W. M. Alex-

ander and others. The former was the petition which had been heard by the committee. The latter was the one which he sought to have referred back to them for reconsideration, they having refused to entertain it.—After a few words from Mr. H. Johnstone, Sir C. Douglas, and Mr. Oswald, Sir G. Clerk was convinced that some cunning had been manifested; for the petition before the committee was the petition of W. M. Alexander alone, and yet it was endorsed as the petition of W. M. Alexander and others. He would not be disposed generally to oppose such a motion as the present, but in the peculiar position of the case, he would wish to hear the hon. Speaker's opinion.—The Speaker said that when a petition had been referred by the House to a committee, it was the duty of the committee to receive it, and hear the parties. In the present case he feared that the gallant officer (Capt. Jones) had been deceived by the similarity of appearance between the indorsements of the petitions. There certainly had been some mistake, but the committee was bound to look into and satisfy themselves. They should have made sure, by referring to the parties themselves.—The motion was agreed to.

APRIL 6.—On the motion that the Sheffield and Crewe Bill be read a second time, Mr. H. G. Ward presented a petition from certain shareholders, praying that the bill might not be proceeded with, as the calls would not be paid up.—Lord Sandon said he should take advantage of the present petition to solicit information as to the intention of the Government. The condition of the money market was very different now to what it had been, and there prevailed an extensive desire on the part of persons who had embarked in railway projects to retreat from them. First, it blocked up the employment of money; next there was an apprehension of success, for in many instances it was no longer wished but feared; thirdly was to be considered the effect of this state of things upon railways now before Parliament. There was no branch of industry exempt from the influence of speculation, and in proof of it his lordship read quotations from circulars of Messrs. Coleman and others. Parliament before the recess ought to declare that it would not proceed with any railway bill until a meeting had been convened of the shareholders, and they had represented the fitness of continuing the undertaking. A modification of this proposal had, however, met with more general approbation, and it was this— that an assurance should be given by Parliament that if petitions, properly supported by shareholders, were presented, stating that they did not wish the enterprise to be carried further, that Parliament would listen to the prayer. If the directors withdraw a bill, they lose all hold upon those who had signed the deed for a share of the expenses; the deed was at present held good, as a part of an undertaking that the directors shall pursue a certain object before Parliament, and any shareholder might refuse his contribution if the directors did not fulfil their engagement. On the other hand, if Parliament rejected a bill, the directors could recover from the shareholders their proportion of the expenses. He hoped that her Majesty's ministers had considered the subject, and would be prepared to state the course they recommended.—Sir R. Peel animadverted on the epidemic character of the railway mania, and the difficulty of stopping it by legislation. Everybody (said he) is the best judge of his own concerns, and of the dangers he incurs: it is better to leave them without interference. At the same time I have always felt that, considering the extensive powers the House has conferred on railway companies, it is in some sense a party to the matter. It differs from ordinary speculation in this respect—that the Legislature has been called upon to give most extensive powers to parties to take possession of private property for a public purpose; and I think that the House in this particular case might usefully interpose. So far as the parties themselves are concerned, I cannot say that I have any great pity. It might be attended with evil consequences to relieve them, if it were an individual case. You never will correct the spirit of speculation but by personal suffering and inconve-

nience ; and if any individual speculators have diverted their money from their usual trades, upon which their families depend for subsistence, with all proper sympathy for innocent persons—for their families are innocent—yet upon the whole I should deprecate interference for the mere object of relieving the individuals. The difficulty of interposing any direct check is so great, that I am not surprised the committee who were appointed to consider the subject was adverse to any interference with the ordinary application of capital. My noble friend the member for Liverpool has called the attention of the House to a question that seems to me well deserving consideration, and without applying any invidious principle of selection, can we make any distinct limitation as to the number of projects ? Can we say what amount of capital we will permit to be invested in them ? The question is, whether you have not the means of limiting the amount of capital by an indirect check ? There is a vast number of schemes at present under consideration, but there has been a great change of circumstances since many of them were concocted ; competition has been found much greater, and the prospect of profit much less. The difficulty of raising money has vastly increased, and those who imagined that they could easily obtain it at two and a half per cent. while the fever was at its height, now find that they cannot raise it at five per cent. That has acted as a very powerful febrifuge, and has much diminished the appetite for speculation. With respect to schemes which are intended to obtain the assent of the Legislature, we ought to form no arbitrary opinion of our own ; but if a majority of the subscribers think that the undertaking will not prosper—that there is no prospect of reimbursement—I do not see why the House should not resolve to refuse its sanction to the bill. Take one or two cases as examples : I know some Scotch railways, in which the subscribers, so far from contemplating with pleasurable feelings the prospect of success in Parliament, have been exceedingly alarmed at having made out their case before the committee : they have had meetings to ascertain whether Parliament will not relieve them, and they have come to resolutions to dissolve. But I know another case, where the amount of subscriptions has realized the sum of 100,000*l.* ; 10,000*l.* have been expended in preliminary proceedings, and there remains 90,000*l.* in exchequer bills. This bill has been rejected, and the directors and a vast majority of the subscribers are desirous of dissolving, but a very small body of the shareholders resists. I apprehend that any two shareholders might successfully resist the dissolution, because the directors have entered into an engagement to do their utmost to procure the sanction of the bill by Parliament ; that engagement, I take it, is not limited to one year. My noble friend understated his case ; for if the terms of the subscription deed left it to the discretion of the directors to dissolve the company, there would be no difficulty ; but in no case, as I am informed, is that so ; they have entered into the speculation because they thought it would be profitable, and the directors have not now the power to dissolve. Therefore, without any hope of passing a bill, they have 90,000*l.* vested in exchequer bills, and the shareholders are almost unanimous that it would be better both for the public and individual interests to return to each subscriber the proportion of the money that may be due to him. Nevertheless, one single shareholder may hold out, and may put a stop to the dissolution by saying—"I will hold you to your engagement, or I will file a bill against you in Chancery." In order to prevent the possibility of loss to parties who ought not to suffer, I propose that the persons who were the original parties to the engagement shall remain with all their responsibilities to any creditor to any extent : there should be full assurance that every debt will be paid—that every engagement, with the engineers or others, shall be strictly fulfilled. For this purpose, it might be necessary to have an official assignee, or trustee, to take possession of the property of the company, and to see it appropriated to those who have just claims upon it. If the House sanction the measure that I have thus shadowed out, we shall

not impose on the undertakers the completion of the work for the sake of a minority of subscribers, for it would be a public inconvenience to compel the completion of an undertaking from which no general advantage is to be derived. I think that we ought to require the expression of the wish of a majority, but it ought, at all events, to be a certain proportion of the subscribers in number and value who can represent the opinions of the subscribers at large. Let them express their willingness to withdraw the bill, and Parliament might determine not to read a bill a third time, until after a full opportunity of ascertaining the desire of the subscribers. The result would undoubtedly be that many schemes would fall to the ground, and this seems a perfectly legitimate and natural course. I know how important it is that the bill should pass. I do not see how it can pass before the Easter recess, but I hope in the course of to-morrow my noble friend in the other house will give a more full explanation of the outline of the contemplated measure than it is in my power now to afford.—Mr. Labouchere expressed his satisfaction that the Government had at length taken up this subject; but he thought they might have gone a step further, and have said to the shareholders—“We will not pass these bills unless you tell us that you desire their being sanctioned.”—Sir G. Clerk preferred allowing parties to withdraw from injudicious schemes.—Mr. Ward and Mr. W. Patten both approved of the proposed measure.—Mr. P. M. Stewart would suggest in addition it should not only be competent for, but compulsory on the shareholders to express an opinion on their bill during some stage of its progress through Parliament. To an objection of Mr. B. Denison as to the inconvenience of assembling shareholders living so far apart, Mr. Bernal suggested that a declaration might be made before a local magistrate.—Mr. H. Hinde would caution the House as to the present step; they should look at what was going on in Scotland just now. In that country, when the shares of a line were at a discount, a combination took place to break up the company; thus, for instance, 3*l*. had been paid on each share of a company, and these were considerably at a discount, and steps were then taken to break up the company on the chance of 2*l*. being returned on each share.—Sir R. Peel said that he was unacquainted with the system that was going on in the speculations alluded to. It was not intended that the opinions of the original shareholders should be taken, but of those who now held the scrip. The original shareholders might have nothing to do with the matter, and could have no right to interfere; he therefore proposed that a certain number of persons, holding more than one-half the shares in the company, should be enabled to decide whether the Bill should or should not pass. He thought that it was right and proper for the Legislature to receive and listen to the petitions of such shareholders, and thus put a stop to the bill. He did not propose that this step should be delayed to the third reading, but that it might be taken at any stage of its progress. There were, however, several railway bills the third reading of which was fixed for to-morrow; now he thought that it would be proper to postpone this stage to a future day, so that the shareholders of these companies might withdraw the bills if they pleased.—After general remarks from Mr. W. Collett, the Chancellor of the Exchequer and others, Mr. C. Buller said it would be absolutely necessary that some inquiry should take place to ascertain the validity of petitions presented as emanating from a majority of the scripholders. It appeared to him that before the House adjourned they should make the public aware of the course that Parliament intended, and should declare their determination not to proceed with any further stage of any railway bill where there would be presented any petition or petitions, signed by a majority of the scripholders, praying the House not to go on with such bill. He also thought it would be desirable that when they appointed a committee on a group of railway bills these petitions should not be referred to it, but that some other committee should be selected in the first instance, to inquire whether the petition against the bill was signed by a majority of scripholders or not.—Mr. M. J. O’Connell

took the opportunity to suggest whether some compulsory clause might not be introduced into the Irish railway bills that would come before the House after the recess, giving the companies but a limited time for constructing the works, after which the bills would expire.—The Sheffield and Crewe bill was then read a second time.—Lord Sandon presented a petition from numerous merchants, bankers and brokers, of Liverpool, praying for measures to prevent an excessive number of railway bills being passed, on the ground of the inconvenience which would result from the withdrawal of capital from trade. He also presented a second petition, signed by almost every member of the Stock Exchange of London, to the same effect.

APRIL 7.—THIRD READINGS.—Lord G. Somerset proposed “That all proceedings on railways in committees, or in the House, shall, after Thursday next, be postponed until Monday, the 27th day of this instant April.” He did not wish to show favour to any of these undertakings, for he really knew nothing of any of the bills to which his motion would apply. He thought it would be right that those parties subscribing to many projects should have time to consider whether to proceed with their bills or drop them. In nine cases out of ten there was a disposition, not unnatural on the part of directors, to adopt that course which would relieve them of their personal responsibility for expenses already incurred. He wished to prevent proceedings in committee, or in that House, from being carried on in a period during which considerable expense might be incurred, to which expense Parliament would not be able to put a stop unless his motion were adopted.—Lord H. Vane said he had no objection to the general proposition of the noble lord, but he thought those railway bills should be exempted from its operation, the investigation into which was nearly terminated, and could be brought to a conclusion in a short period. In such cases it would be convenient that the committees should sit again, according to the usual practice, on the re-assembling of Parliament.—After remarks from Mr. W. Patten, Sir J. Easthope, the O’Conor Don, and other members, the motion was agreed to.—**GENERAL TERMINUS AND GLASGOW HARBOUR.**—Mr. Hume said this bill proposed to interfere with the navigation of the river Clyde, and the bill called upon the Commissioners for the Improvement of the Clyde, who were already 300,000*l.* in debt, to expend a sum of 80,000*l.* more for the advancement of the proposed line. The interference with the navigation was a strong objection to the bill *in limine*, supposing the promoters were going to pay the entire expense themselves; but it was monstrous to think that the Clyde Commissioners should lay out a sum of 80,000*l.* in addition to their debt of 300,000*l.* for the benefit of the company. He considered this a matter of great public importance, and should, therefore, move an amendment that the evidence taken before the committee be laid upon the table.—Lord Worsley, as chairman of the committee, admitted that the Tidal Harbour Commissioners were opposed to them, but the Clyde Commissioners were more in favour of the particular measure before the House than of the two others.—Mr. Spooner supported the bill, because it had been provisionally sanctioned.—A division took place: For the motion, 74; for the amendment 82; majority, 8.—On the motion of Mr. Hume, it was ordered that the evidence be printed.

APRIL 8.—SHREWSBURY AND HEREFORD.—Sir R. Price moved that the Report of the Standing Orders Committee on the Shrewsbury and Hereford, “that the Standing Orders ought not to be dispensed with,” be referred back to the Standing Orders Committee for reconsideration.—Mr. Estcourt opposed the motion. The proper course to pursue was to present a petition for a new bill.—Sir R. Peel recommended the matter to be left to the decision of the Standing Orders Committee, having the fullest confidence in the discretion of that body.—**THE RAILWAY DEPOSITS.**—The House then went into committee on this bill.—The whole of the clauses were agreed to, and the House having resumed, the Chairman reported accordingly.—Report to be brought up on the 24th of April.—**RAILWAY LEGISLATION.**—

Mr. Labouchere said, they were about to separate for the Easter recess, and yet no bill or resolution has been introduced into either House of Parliament with respect to the railway measure the right hon. baronet alluded to the other night. Now it was important that something should be known with respect to that bill immediately, or great loss would ensue to some of those parties who were engaged in promoting railway schemes, and he wished to ask the right hon. baronet the First Lord of the Treasury, whether he would put the railway world in possession of the principle, if not the details of the measure?—Sir R. Peel said the measure involved the nice details of the law of partnership, and it was, therefore, important that the measure should be considered by the highest legal authorities before it was introduced to the Legislature. He was strongly, however, inclined to think that it was desirable for the Board of Trade to issue a circular, addressed to the different railway companies, informing them, without going into the details, of the general principles which the Government were disposed to agree to in introducing this bill. He should, therefore, advise his noble friend the President of the Board of Trade to give some public notification to that effect.

APRIL 21.—IRISH BILLS.—Mr. S. O'Brien submitted his motion:—That with a view to diminish the inconvenience and expense now incurred in carrying through Parliament bills for the construction of railways in Ireland, it is expedient that, in the case of Irish railway bills, all such inquiries as are now conducted in London by committees of both Houses of Parliament should, after the termination of the present session, take place in Ireland. The hon. member enlarged on the expense and inconvenience attending the forwarding of Irish schemes before tribunals in London. For his part, he could see no objection to confiding to a commission, appointed by the Speaker, the duties now performed by the members of that House. Let the Speaker, with the assent of the House, at the close or the commencement of the session, as the case might be, appoint a commission of five individuals, one a counsel of eminence—another a civil engineer—another possibly a military engineer, or person of high scientific authority—another a person of high commercial station—another an intelligent country gentleman. He would leave the question in the hands of the Government, who might suggest a remedy for the evils which had urged him to submit his opinion to the House.—Mr. F. French supported the motion. No railway bill passed in the House could be obtained under a cost of 20,000*l*. There was no more necessity for the House to decide on the construction of a railway than for the construction of a turnpike road.—Sir R. Peel admitted that it was an important question whether or not certain preliminary inquiries could be undertaken by some other tribunal than the House of Commons. He did not express an opinion adverse to such a proposition, though he would not favour anything which would withdraw legislative power from the House. But as they were not prepared for such a discussion, he would suggest, for the present, the withdrawal of the motion. After several remarks from Mr. Wakley, Mr. M. O'Connell, the Chancellor of the Exchequer, and others, chiefly Irish members, the House divided—for the motion, 25; against it, 69—majority against it, 44.

APRIL 24.—GOVERNMENT RESOLUTIONS.—Sir R. Peel, in rising to propose the government resolutions, began by alluding to the interference of the House with commercial projects. He said,—“I should be desirous, under ordinary circumstances, of leaving parties to the free exercise of their own discretion, but where there is a risk of great public inconvenience arising, I think that Parliament is bound to go out of the ordinary course, considering that the case has gone out of the ordinary circumstances. The question, therefore, whether there is not, at the present time, a case sufficiently strong to justify Parliament in interfering, that the available capital of the country may not be diverted from its legitimate channels to a great railway enterprise, not yet wanted, embarrassing thereby all other commerce and sacrificing the interests of its rash promoters. In the first place, I will put the

House in possession of the exact amount of capital already to be devoted, under the authority of Parliament, to railway enterprise ; and, secondly, the amount to which it is sought to pledge the country by all the bills now pending. In the year 1844 the number of railway acts which received the sanction of the Legislature was 37. The capital authorized to be raised was 13,388,000*l.*, and the amount authorized by loan was 4,600,000*l.*, being a total amount of 17,988,000*l.* In the year 1845 the number of bills that obtained sanction was 118, and the share capital to be raised amounted to 45,853,000*l.* The amount authorized by way of loan was 14,635,000*l.*, being a total amount of 60,488,000*l.* In the return of the number of bills which on the 11th of April last were under consideration, the number of English bills amounts to 369, the number of Scotch bills amounts to 107, and the number of Irish bills amounts to 43, making a total of 519 bills, which, so far as public records can be relied upon, are bills in respect to which the decision of Parliament will be called for during the present session. By the English bills, capital to the amount of 184,700,000*l.* would be raised, supposing all those bills received sanction. But in addition to that sum, loans to the amount of 58,000,000*l.* would likewise be authorized. By the Scotch bills, the capital to be raised by shares would be 58,500,000*l.*, and by loans to the amount of 9,500,000*l.* And by the Irish bills, the raising of capital to the amount of 18,104,000*l.*, and loans to the amount of above 5,000,000*l.* would be sanctioned. The total sum would amount to 261,304,000*l.*, and the total amount to be raised by loans to 72,781,000*l.*, making a total of capital which would be authorized to be raised by the bills now pending before the Legislature, independently of the unpaid capital authorized to be raised by Acts sanctioned in the session of 1844 and 1845, of 334,086,000*l.* I know very well that it would be illusory to assert that this is a statement of the amount actually and truly sought to be raised for railway enterprise. I know that many of these bills are of a competing character, and many are of such a nature that the passing of them would be quite unnecessary for the public, and, therefore, when I say that it is sought to raise 334,000,000*l.*, a very great deduction must be made ; Parliament in the ordinary course will reject many of those bills ; in short, for various reasons many of them cannot pass into law. But make what deductions you please, the total amount of capital sanctioned to be raised by the Legislature, in the course of the present session, will be much greater than in the present state of the country would be conducive to the public interest. With respect to the bills passed before the year 1844, of the capital authorized to be raised by such bills, there remains 20,867,000*l.* not yet called up upon the shares. Again, that must not be taken as the amount of capital not yet paid up, and to be called on when required, because, in many cases, loans have been raised for the purpose of carrying on the works, instead of the shareholders having been called upon to pay up the deposits. What the amount of such loans may be I cannot state, I can only say that there remains of capital authorized to be raised by bills passed before the year 1844, a sum yet unpaid amounting to upwards of 20,000,000*l.*, supposing no loans to have been raised for the purpose of completing the work. With respect to bills passed in the year 1844, the amount of capital stock still unpaid is 5,290,000*l.* In respect to railway bills which passed in 1845, being 118 in number, there remains of capital stock to be raised by shares, still unpaid, very nearly 28,000,000*l.*—the actual sum is 27,952,000*l.*, and therefore, independently of all bills passed before the year 1844, there remains of capital stock to be paid up on bills passed in the years 1844 and 1845, 33,242,000*l.*, and this is, of course, independent altogether of the capital to be authorized by bills during the present session. Yet even with regard to this application of capital—greater, I cannot but think, for one particular species of commercial enterprise than it is for the public interest to so apply—I do not mean to throw any obstacle in the way of such application ; but what I would say is this—may we not, under such circumstances, take the opinion of those per-

soms most deeply interested—of those who have entered in those speculations?" The right hon. baronet then alluded to Mr. Brunel's evidence before the committee on merits on the London and Oxford lines, as to the cost of materials, &c., being 50 per cent. dearer than at the time of promoting the Oxford and Rugby bills. Such an increase naturally affected the prospects of numerous schemes, fluctuations ensued, and the promoters could but wish to withdraw their original intentions. He noticed at length the chicanery and deceptions of the new companies which had drawn in so large a portion of the public. Legislative interference was necessitated, and that too speedily. He said,—"The liabilities of parties are very great, and the power of directors and the provisional committee is very great. So far as I can judge, there is no effectual control over the acts of the provisional gentlemen and directors. I have received a letter from a person—I shall not give his name, but any hon. member can see the letter—and if the statements contained in it be correct, there are proceedings on the part of those parties which do most certainly require some parliamentary interference. Proceedings have been adopted with respect to innocent and helpless subscribers which I think do require permanent parliamentary interference. I will not give the names of the companies which are mentioned in the letter addressed to me. The party who writes this letter is in a position which enables him, I should think, to bear testimony upon such matters. I cannot undertake to answer for the accuracy of the information; I can only undertake to do that which I think everybody quoting information of this kind is bound to do, that is, to give up the name of the party by whom the information is furnished. This gentleman says, in a letter I received yesterday: 'One of the great deceptions of new companies has been the holding back of large portions of the shares, for the purpose of rigging the market, and pocketing premiums at the expense of the public. I will instance a few out of the countless number of railway rigs that have been played. In the —, only 42,000 out of 50,000 shares, I understand, were issued, the other 8,000 being kept back, though the shares were at a high premium, and applications out of number made for them. In the — 10,000 out of the 100,000 shares, were reserved by the directors above the number paid on. The — had only 55,000 out of 100,000 shares issued, though the shares were at one-and-a-half to two premium. There are some facts connected with this line which I could not trust on paper. The — reserved an enormous number of shares, notwithstanding the circumstance of hundreds of thousands more than the whole number of shares in the company having been applied for. In the —, about one-half the shares were kept back, the market rigged to 6*l.* or 7*l.* premium, and then certain of the directors sold to their friends, as favours, shares at, I believe, 3*l.* or 4*l.* premium, a part of which premium they were compelled to give back upon the breaking up of the company.' But the last case is the most extraordinary of all. With respect to a railway which is mentioned, this is stated:—'In the — several thousand pounds of the deposits were taken out of the bankers' hands to rig the market;'—that is to say, the shareholders or scripholders of this company having paid the sum of 10 per cent. upon the amount of shares to be issued, there was, I understand, a sum of about 20,000*l.* paid into the hands of the bankers, which was afterwards drawn out and invested in the purchase of shares, wherever shares could be obtained; and the shares, in consequence, rising to a very high price, the reserved shares were then sold in the market at the increased price, that increased price having been obtained by the application of the money as I have mentioned, and the directors pocketed the gain arising from the proceeding." He then discussed the prospective effect of the resolutions:—"I am told that scripholders will not come forward—that shame will deter many from doing so—that parties, having entered very willingly into these speculations, think that their credit would be injured by their now coming forward to express a desire to withdraw. I hope that no such motive will

influence them. If parties will not take care of themselves, it is impossible that we can benefit them by legislation. If, after Parliament has given them the opportunity, they do not release themselves from their engagement, they will be the objects of no sympathy should they be ruined. All that we can do is to give them an opportunity of saying, 'Here is a speculation in which I embarked in a moment of excitement, and Parliament having given me the opportunity of recording my repentance, and of releasing myself from my engagements, I will take advantage of the opportunity thus afforded.' But this I must say, that if provisional committees, or directors, by trafficking in shares, endeavour to overpower the sense of a meeting duly called—if any undue means are resorted to for the purpose of controlling the *bona fide* wishes of the shareholders, I do not believe that those parties will be exempt from parliamentary control. Now, under these circumstances, in this state of the law, and this position of railway interests, her Majesty's Government have felt it to be their duty—well knowing that it is a case of great difficulty, and believing it possible that the particular measure which they propose may be open in some cases to exception, and in others to amendment, observing the effect which these improvident speculations are producing upon the general state of mercantile dealings in this country, and foreseeing the evil consequences which may arise from an imprudent sanction of railway bills—her Majesty's Government have, I say, felt it their duty to originate a proposition for parliamentary interference. I believe that this is the period when it is most likely that such a proposition will be favourably received. I doubt whether, at a much earlier period, it would have been favourably received. I think that the presumption in favour of the general principle that we ought not to interfere with the course of private speculation, would have prevailed against any proposition made on the part of her Majesty's Government, at a period when the sense of present evil, and the prospect of greater, was less strong and general than it is at present. As I said before, we do not propose to throw any arbitrary obstacle in the way of the progress of railway schemes. What we propose to do is, to consult the wishes of Parliament, and to ascertain whether the expression of those wishes may not in itself interpose a useful check to superfluous railway enterprise. We propose to remedy the defect of the law with respect to the dissolution of railway companies, by immediately bringing in an Act of Parliament, providing that in the case of all inchoate railway companies which have been provisionally registered, whether they have presented a petition to Parliament and made any progress with the bill, or whether there is a suspension of the bill, and they are contemplating proceedings in a future session; we propose that with respect to all railway companies, without exception, power shall be given to the scripholders to dissolve the company under certain circumstances. We propose to act first by bill, and next by the seasonal order which I have laid before the House. The bill will deal with the power of dissolution. We propose to enable a given number—and that number a very small one, five, perhaps, of the scripholders—to address a requisition to the directors, or to the managing committee—by whatever name they may be called—requiring them to call a meeting of the scripholders, after a sufficient interval has been allowed for giving notice to all the parties interested, and we propose that it shall be obligatory upon the managing committee to call that meeting. We shall take precautions for insuring that there shall be due notice of that meeting; and with a view to the case of the managing committee refusing to call it, we shall introduce provisions to insure its being called. We then propose, that in case the shareholders and scripholders, whether original shareholders or holders of scrip or shares, attending the meeting or voting by proxy, hold shares to the amount of more than one-half of the whole of the shares originally issued, the majority may at once determine on the dissolution of the company. But, as it may be very difficult to have a meeting which shall represent more than one-half of the capital of the company, we propose that a meeting of shareholders re-

presenting one-third of the capital stock issued shall be sufficient to dissolve the company, provided that three-fifths (in value) of the persons present, or voting by proxy, shall signify their desire to dissolve the company. We take, therefore, security that the meeting shall not be a packed meeting, by requiring that the stock represented at that meeting shall not be less than one-third of the capital stock of the company. It may be, however, that the amount of stock represented at the meeting will not amount to one-third; and in such a case, on account of that failure with respect to the amount, the meeting would be of no avail. We propose that in that case there shall be a power of adjournment to another day, that a second meeting may be held after due notice, and that the ultimate result of the two meetings shall be, that provided one-third of the capital stock shall be represented, and three-fifths of the persons present, or voting by proxy, shall determine in favour of dissolution, in that case the company may be dissolved. In order to prevent the application of railway shares unduly to influence these meetings, we propose that the scrip to be represented in them shall be scrip issued before the 31st of March last, that there may be no possibility of influencing the sense of the meeting by the undue application of reserved funds. With respect to scrip which has been purchased, as there is no record of the period at which the purchase was made, there will be no power of dealing with the parties who have purchased it; the only security which can exist is, that the scrip with respect to which the right of voting shall accrue, shall be scrip which has been issued before the 31st of March. Now, connected with that bill, and ancillary to it, is the sessional order which I now propose." [The hon. baronet then read the sessional orders.]

Mr. S. French objected to the application of the sessional orders to the Irish bills now in the House of Lords. He thought the third reading of such bills ought not to be postponed.—Mr. Bernal regretted that the resolutions had not been brought forward earlier, great expenses would have been saved.—The Solicitor-General hoped that the House would agree to the propositions now laid before them. And the circumstance that railway companies were comparatively a new feature in social economy, which had scarcely as yet become the subject of legal consideration, more especially as to those points which were now particularly under the consideration of the House and of the public, the law upon almost every question that could arise as to railways was full of complication and uncertainty. No lawyer could give any decided answer as to any point that might be submitted to him on the subject. He then described the commercial and other evils arising out of the existing state of things.

"If the House would reflect for a moment how numerous and various and complicated were the grounds on which each particular competing bill sought to be preferred to its rival, it would see that it would have been impossible for the Government to have undertaken and gone through the process of considering the various bills, and selecting one rather than another, without at the same time undertaking and exercising and carrying through all the functions of the Legislature, in reference to proposed schemes. How could the Government decide, with anything like justice to the promoters and opponents of a great number of measures, that this scheme was preferable to that, without having previously entered into all the merits of the competing lines, in the way in which it was the duty of committees to make such inquiries?"

When he came to consider the situation of the unfortunate speculators in railway schemes, and of those who were in other ways connected with them, he found that there were four classes of persons to deal with. The first class consisted of committee-men, or directors and provisional committee-men, the directing bodies of these schemes. The second class consisted of original subscribers, but who, though they were subscribers to the scheme, and though they were liable as such to all the covenants, liable for all the contracts into which they had entered, no longer possessed any beneficial interest

in the particular schemes, in consequence of having sold their shares. The third class were the holders of scrip, persons who had either purchased scrip from the original holders, or were themselves original holders, who had retained their scrip. The fourth class consisted of the creditors of the various concerns, not speculators, but individuals who, for work done or goods supplied, had claims against these inchoate companies, for the payment of which they looked to somebody or other. The question was, how the House could best meet the fair views, the legitimate interests of these four classes, with as little injury as possible to others. What would be the best step for it to take, in order to put an end to profitless expenditure on ineligible schemes, and to the schemes themselves? At present there was an insuperable difficulty in the way. There was no means by which a company could dissolve itself, unless the dissolution was the act, not of the directors, not of the majority of the shareholders, but of every shareholder in the company. The consequence of such a state of things might be destructive to a very large proportion of the community, unless remedial legislation were adopted, and adopted without delay. The proposed bill would be a great boon. He said—

“The directors of many of the most hopeless companies were compelled to go on, utterly against their own convictions, against the wishes of a large proportion of the shareholders, and thus situated, driven into a corner for want of money, they were seen bringing or threatening actions in every quarter; bringing actions, for instance, against allottees, though it was impossible in the present state of the law to see how actions against allottees could be maintained; for even though in a particular case such an action might pass for a time, it formed no rule that in other cases, the circumstances of which differed, however slightly, a similar action could be entertained. Nothing could be more preposterous than this state of things. There were actions being brought upon the strength of decisions, when no such decisions had been come to at all, the judge for the particular case having expressly denied that he came to any decision in the matter, having expressed that he had given no opinion at all on the subject, but had reserved every one of the points submitted to him. Yet no sooner had an erroneous report in the newspapers given currency to the statement, that a verdict had been given against an allottee, than hundreds and thousands of actions were set on foot against allottees; there were, for instance, no fewer than 200 actions commenced against allottees by three companies alone. All sorts of proceedings were instituted; the same parties threatening one set of people with actions on the strength of the case of *Walstab v. Spottiswoode*, another set with actions on the strength of that of *Woolmer v. Toby*, or seeking compromises, on the strength of either, with a third set. He trusted that the House, by sanctioning the measures now proposed by Parliament, would put a stop to this most mischievous state of things. The Government plan would give to the proportion of shareholders in any scheme before Parliament—representing one-half the entire shares in value, by a resolution come to at a meeting of the body, duly convened on the requisition of holders, representing one-third of the shares in value—the power of dissolving the company at once.”

He then pointed out the operation of the proposed remedies.—Mr. Hudson fully agreed with her Majesty's Government that the present was the only time at which any measures, to act effectually, could have been brought forward; for he believed that, had the measure now proposed been brought forward at an earlier period, it would not have met with the present general approbation. The opinions to which scrip-holders would now come would be based upon sound views. All parties were seriously considering their position, and the result, he trusted, would be, that they should hear no more of any but sound and profitable projects. He did not deny that during a short period there had been excitement in the railway world, arising from the successful progress of existing companies, which induced others to come

forward in order to reap the harvest which had been reaped by those who had borne the burden and heat of the day. He (Mr. Hudson) had, however, not been unfaithful to the public, for he had fully warned those parties of their danger. At almost every meeting which he had attended he had cautioned the public against that wild speculation observable on all hands, and he had told them what the consequence would be. It was no use speaking, however. The railway principle was calculated to work out the greatest advantage, and believing that, he must say that it was with great regret he had heard that an engineer of eminence had given it as his opinion that the expense of constructing railways now would be 50 per cent. more than it was this time last year. However eminent that gentleman might be, he (Mr. Hudson) felt bound to state that in that opinion he did not agree. He could now inform the House that on the Midland Railway the iron rails cost 11*l.* 10*s.* per ton; the sleepers cost 7*s.* each; land, another great item in railway outlay, and other things, were in like proportion; whilst only the other day he purchased a large quantity of iron rails at 9*s.* a ton, sleepers at between 4*s.* and 5*s.* each, and he found that land also was generally cheaper than when the Midland was constructed. No doubt the expense would be greater than in 1841, when he had purchased rails at 5*l.* and five guineas a ton, yet the prices now were not so expensive as to deter persons from embarking in really creditable speculations. He trusted that the proposed measure would be fairly received and treated by the public. He was sure, if he judged rightly of the directors of the different companies, that they would be anxious to give their proprietors a fair opportunity of deciding anew whether they would proceed with their respective undertakings. At the same time he did hope that there would be no needless panic. One of the first companies with which he was connected would have been dissolved and the scheme abandoned but for the energetic conduct of two or three individuals; the shares were unsaleable—parties would not register their scrip, and the directors might have proceeded to call upon the original proprietors. They persevered with their project, however, and every 50*l.* that had been invested was now worth 300*l.*—Mr. M. Phillips gave his cordial support to the resolutions of the right hon. baronet. He agreed with the hon. member for Sunderland that the railway system was productive of very great and signal advantages to the country. There were persons who thought that it had been better for the Government to have assumed the management of all railways. He did not think so, for he thought no public servants could ever act so vigorously or so advantageously as those who were stimulated by the hopes of gain and personal honour. There were amongst the directors of railways individuals who would have adorned any station. These individuals had risked large amounts of capital, and by their enterprise, their sagacity, their perseverance and industry, they had reaped a reward which they richly and nobly merited.—Mr. Newdigate thought the Government proposition very well timed.—Mr. Ward admitted that there had been scarcely anything to compare with the railroad mania, unless the Mississippi, or the South Sea bubbles. All sorts of schemes had been patronised; no discrimination had been exercised; and the consequences had this additional evil, that the good lines were confounded with mere bubbles. But this benefit would be the result, that for the next twenty years the public would not forget it. There was no doubt that many exceptionable transactions had taken place in the railway world. But the “innocent shareholders,” as they were termed, were not so free from participation in the causes which led to the withholding of shares. The difficulty of a provisional committee dealing with the enormous number of applications was very great, and the utmost caution had to be exercised. Applicants, too, looked not to shares but to premium; and numerous were the cases in which members of Parliament, merchants of high standing, and other respectable parties, had refused to take up their shares, because they could not at once dispose of them to advantage.—Mr. F. T. Baring

said that in committee he had objected to any legislative interference with the employment of capital. The right hon. baronet had so framed his resolutions as to effect beneficial results without at all touching on the principle. To the resolutions he had not the slightest objection. They afforded a remedy in accordance with the wishes of the proprietors, and made no attempt to control them. For these reasons he gave his cordial concurrence to the proposal of the right hon. baronet.—Mr. B. Denison regretted that in the course of last summer Parliament had not attempted some preliminary interference with railway schemes. He approved of these resolutions, because they would enable parties to wind up, and the sooner the better. Mr. Brunel's statement had already been answered by the hon. member for Sunderland; but he (Mr. Denison) would add that he had been in communication with persons in the habit of contracting for railway work, and they had informed him that the increase would be 10 to 15 per cent., not 50 as stated by Mr. Brunel. He repudiated the measures going on to wind up the London and York scheme, and pointed out the operation of the proposed resolutions.—The Chancellor of the Exchequer remarked that though their financial difficulties from the extent of railroad speculation had been foreseen by those who had directed their attention to the subject, yet such was the exaggerated idea entertained of the extent of the resources of the country, that it was necessary to permit the public mind to cool before the Government could advantageously interfere.—A discussonal conversation followed, chiefly between Mr. Gisborne and the Solicitor-General, who said, it is perfectly clear that as the law stands, a person who has purchased scrip cannot recover back from the original allottee the price he may have paid for it. If he has given his money for scrip, he must abide by the bargain.—Mr. O'Connell advocated the necessity of a separate tribunal for railways. He supported the resolutions, as did Mr. Packe.—Lord G. Bentinck denied that the Government ought to claim credit for interfering now that the people were sober, seeing that they were mainly to blame for their intoxication. They had stimulated speculation by reducing the amount of the deposit required by the Standing Orders; while Sir R. Peel, by his speeches about direct lines, and his officiating at the opening of one, handling the silver spade and the mahogany wheelbarrow, had greatly encouraged the madness.—Mr. Cardwell replied, that if the Government had any share in making the people railway drunk, it was because their financial and commercial measures had promoted prosperity, and disengaged capital, thereby inciting to enterprise.—Mr. T. Duncombe remarked, that at all events the Government were not to blame for the present mania of obstruction, by which trade and commerce were kept in a state of stagnation. So far as railroads were concerned, they did not go far enough; they ought to probe every company to the bottom, in order to ascertain whether it were a *bona fide* or a mere Stock Exchange scheme. To effect this, he would propose, as an addition to the resolutions of the Government, other resolutions, instructing every committee on railway bills to ascertain the names, residences, amount of shares, and a variety of other particulars, as set forth in his motion. In introducing these resolutions, he dwelt at some length upon the *ad captandum* devices which had been resorted to for the purposes of entrapping contributors to various bubble schemes. The clergy, Mr. Duncombe complained, had lent, to a frightful extent their spiritual influence, to vamp up various illusory schemes, and the laity, led by the example of their ghostly guides, had fallen into the snare. After some general remarks from Mr. M. Milnes, and some personal ones from Mr. Disraeli,—Mr. Bright pointed out to Mr. Disraeli that the resolutions proposed by the Government, instead of fettering the operations of capital, were rather calculated to set it free. The party headed by Lord George Bentinck was not precisely entitled to set itself up as an authoritative arbiter on all questions of gambling speculation.—Several verbal corrections were made in Mr. Duncombe's resolutions, which were passed in the amended shape.—(See p. 378.)

APRIL 24.—Mr. Spooner moved that the *Glasgow Harbour Grand Junction Terminus* bill, of which notice of Report had been given for this day, be reported this day, notwithstanding the resolution of the House of the 7th day of April.—Agreed to.

PUBLICATION OF SUBSCRIBERS' NAMES.

Mr. Gibson Craig has moved for an alphabetical list "of the names, descriptions, and places of abode of all persons subscribing to the amount of 2,000*l.* and upwards to any railway subscription contract deposited in the Private Bill Office during the present session of Parliament, showing the amount of money subscribed by each person for every railway to which he may be a subscriber, and the total amount of such subscriptions by each person."—The same was ordered on the 2nd inst.

MR. MORRISON'S COMMITTEE.

The following circular has been forwarded to all the railways now in operation :—

Ordered,—That there be laid before this committee a return from each railway company, showing—

1. The length of the main line, and the total cost of constructing the same.
A statement of the cost under the following heads, viz.—
 - a. Cost of land, or sums paid for land.
 - b. Cost of engineering, or sums paid to the engineers employed in the laying out and constructing of the line.
 - c. Cost of parliamentary expenses, including the whole sums expended in getting the Act under which the line has been made.
 - d. Sums expended on the construction of the works, distinguishing the cost of rails from the other expenses.
 - e. Cost of the machinery, such as locomotive engines, carriages, trucks, &c., employed in working the line, as well for the conveyance of goods as of passengers.
2. A statement setting forth the Acts of Parliament or authority under which, and the mode in which the capital laid out on the main line, and on the machinery for working the same, has been raised ; specifying the sums received at different times by the sale or allocation of shares, by loans, and otherwise ; and specifying the rates of interest annually paid on the loans, the dates when the loans were contracted, and the periods for which they were contracted.
3. A statement of the rates of tolls per mile authorized in the Act establishing the company to be levied on the passengers, and on the various descriptions of animals and goods conveyed along the line or any part thereof.
A statement showing the rates of charge per mile that have actually been levied on passengers, and on the various descriptions of animals and goods conveyed by the line since its opening ; specifying the exact periods when any alterations (if any) have been made in such rates of charge, and the extent of such alterations.
4. A statement of the entire expense of working the line in each year since opening, so far as is practicable ; also the legal and parliamentary expenses incurred by the company, specifying how much of the latter in each year has been incurred in opposing other lines.
5. A statement of the annual expense incurred in maintenance of way, showing whether the same has been performed under contract, and if so, specifying the duration of such contract ; and showing also, whether any portion of that expense, and, if any, how much, has been added to the capital of the company.
6. A statement of the revenue annually derived from the line, distinguishing the amount received for the conveyance of passengers from that

received for the conveyance of goods, and specifying the number of each class of passengers carried, the rates at which they were carried, and the revenue annually derived from each class ; and specifying also the number of each description of animals, and the number of tons of goods annually conveyed along the line.

7. A statement showing the number of trains per diem that carry third-class passengers, the hours at which such trains depart from each terminus, the rate of speed per hour at which they travel, and whether the carriages are covered and provided with seats.

8. A statement showing whether the company has carried coal ; and if it has done so, showing the quantity carried each year since the opening of the line ; and whether the company has carried it in their own trucks, or allowed it to be carried by other parties, charging them with toll ; and the average distance to which coal has been conveyed along the line.

9. A statement showing the average expense per mile of working each train, (meaning by train a greater or less number of carriages, vans and trucks drawn or impelled by a single locomotive engine,) and the different rates of speed at which the different trains travel along the line ; distinguishing the cost of coke, and also of the wear and tear of carriages and engines from the other items of expense.

10. A statement showing whether the charges for the conveyance of goods on the line are uniform to all parties using the same ; and if not, specifying the exact nature and extent of the differences of charge.

11. A statement showing the total amount of the public and parochial taxes annually paid by the company.

12. A statement showing whether the company's main line has any branches or subsidiary lines attached to it ; and if so, stating the name and length of each, the cost of constructing, and how the money for the same was raised, as far as is practicable.

13. A statement showing whether the company's main or any of its branch or subordinate lines has been extended ; and if such has been the case, showing the length and cost of each such extension, and the date when it was opened.

JAMES MORRISON, Chairman.

OFFICIAL PAPERS.

CIRCULAR TO THE PROMOTERS OF PROJECTED LINES.

Office of Committee of Privy Council for Trade,
Whitehall, April 9, 1846.

SIR,—I am directed by the Lords of the Committee of the Privy Council for Trade, to communicate to you the following information, with a view to your making it known, with the least possible delay, to those provisionally registered railway companies to which it relates. It is the intention of her Majesty's government, immediately after Easter, to propose to Parliament a bill, to enable any railway company, which at the time of the passing of the bill shall not have obtained an Act of Parliament, to dissolve itself. By the bill it is intended to provide for the calling of a meeting of the shareholders, either by the managing body or by a given number of shareholders, at which meeting it is intended that the holders of a majority of the shares in the company, or the holders of three-fifths of the shares belonging to those present or represented by proxy at the meeting, shall have the power to determine upon the dissolution of the company. Due provision will be made

for a sufficient public notice being given of the time and place of meeting, and of the mode in which absent shareholders are to be represented by proxy. Upon the dissolution being carried at the meeting, the property of the company is to become vested forthwith in certain persons to be appointed for the purpose of winding up the concern, and, after discharging the liabilities, for distributing the surplus. The actual holders of scrip are to be taken as shareholders entitled, by themselves or their proxies, to attend the meeting.

JOHN LEFFEVRE.

F. Rogers, Esq., &c., &c., &c.

Joint-Stock Companies' Registry Office,
Sergeant's Inn, April 11, 1846.

GENTLEMEN—I annex a copy of a letter which I have received from the Lords of the Committee of Privy Council for Trade, and which I am directed to communicate to such provisionally registered railway companies as it may concern. I forward it to you, as I do not perceive that your company has notified to this office either its dissolution or its incorporation by Act of Parliament. I am, &c.,

FREDERICK ROGERS, Registrar of Joint Stock Companies.

FIRST REPORT FROM THE SELECT COMMITTEE ON RAILWAYS AND CANALS
AMALGAMATION.

Your Committee, in discharging the duty imposed upon them, have in the first instance applied themselves to the task of ascertaining how many of the railway and canal bills now before Parliament contain clauses involving the principle of amalgamation.

Owing to the circumstance that several of them are still awaiting the preliminary investigation of the committees on Standing Orders, and have not yet been formally introduced into the House, and that the Irish Railway Bills have been commenced in the House of Lords, it has been found difficult, if not impossible, to form a correct estimate of their number; but, making allowance for error, and exclusive of the Irish bills, it may be stated that they amount to about 161 for England, and about 56 for Scotland. Of this number, 37 are bills for the amalgamation, by purchase, lease, or otherwise, of existing railway companies with each other. 32, of railways with canals; 155 for the formation of new lines, and their amalgamation with existing companies or with each other. Amongst the last will be found bills containing clauses which give a general power of leasing the tolls, or leasing or selling the works or lines, with the view of effecting an amalgamation at some future time with any company or companies which may be disposed to take advantage of the power so given. Also bills which, containing clauses with a somewhat similar object, are however restricted to the option of two or more companies therein specified. In addition to and not included in the above list, there are several bills in which powers are taken by existing companies to contribute to the funds for the execution of the works of new lines; thereby securing, in proportion to the sum subscribed, a permanent influence in the future management of the company. Looking to the number of these bills, and to the fact that a great proportion of them have been already grouped, and submitted by the House to select committees for the consideration of their merits, and that some of them are advanced even to another stage, your Committee have felt bound to come to an early decision as to the course which it would recommend the House to pursue in respect of them.

After the best deliberation which the time permitted, it has been thought on the whole most advisable, with a view to avoiding inconvenient obstruction to the business before committees, not to interfere more than is absolutely necessary with their present progress; and that your Committee, taking advantage of such information as could be the most easily and readily obtained, should at once suggest such regulations for the guidance of select

committees as they believe may be safely and beneficially adopted, and which would tend in a great measure, though not altogether, to the attainment of the object of the House in referring this matter to them. In coming to this determination, they have borne in mind that a clause may be inserted in every railway bill, subjecting the promoters to such additional enactments as Parliament may on further consideration deem expedient.

On taking a general view of the various projects of amalgamation, your Committee were at once struck with the general tendency on the part of all the principal railway companies to extend their operations, and to unite as large a proportion as possible of the carrying trade of their respective districts under their own control and management. Your Committee have taken evidence on several schemes of amalgamation, in order to illustrate this tendency; and without invidiously selecting one out of a great number, it may be sufficient to state that some of them are so extensive in their combination, that they may be said to secure, if not a monopoly, at least an almost overwhelming influence in those districts of the country embraced within their limits.

Under such circumstances it appears to your Committee to be the imperative duty of Parliament to consider well and carefully the probable result of these great combinations, and (if they should be consented to) the nature and extent of the privileges which should be intrusted to the directing body of each.

Your Committee are by no means disposed to regard with undue jealousy the principle of amalgamation. The benefits arising from it, if conducted within proper limits and under judicious regulations, are indisputable. It enables companies to conduct their operations with less expense to themselves, and consequently with diminished charges to the public; it conduces to better arrangements and more efficient control, and thereby to greater speed, and at the same time to increased safety to life and to property. It enables companies conjointly to provide that increase of accommodation for the public at their terminal stations, and in their general establishment, which many of them could not separately afford. It also enables small companies, whose lines are worked at great expense, to obtain the benefits of cheapness and general arrangement which are enjoyed by lines of greater extent. The above are advantages of no small importance, especially in the more populous districts of the country, where the junction of numerous lines, under different management, tends to expense, obstruction and confusion, and danger to life and property. On the other hand, it is equally manifest, that if carried beyond certain limits, and especially if not subjected to proper regulation and control, amalgamation must necessarily have a directly opposite tendency in each and every respect. It might greatly diminish the inducements to a low rate of fares, or to the adoption of new improvements; it might tend to a laxity of discipline and decreased attention to public accommodation; and in various other ways injuriously affect the public interests. Indeed, past experience affords sufficient and convincing proof that while, in some instances, amalgamation of railways has been followed by diminished rates of carriage and increased accommodation, in others the result has been directly the reverse.

It would not have been possible for your Committee, without causing much delay and public inconvenience, to examine into the merits of these various schemes of amalgamation: they have therefore directed their chief attention to the question, whether any general rules could be laid down, applicable to the system, which, without fettering the judgment of select committees, might conduce to a greater uniformity of decision, to a stricter examination into the bills brought under consideration, and at the same time to prevent undue advantage being taken of any increased powers and privileges which it might be thought proper to grant. With this object, your Committee have given an early and attentive perusal to the Report upon this subject, which was made by the Railway Department of the Board of Trade, on the

7th of May, 1845. To the suggestions and to the opinions expressed in that Report, your Committee are disposed to give their general concurrence; and in pressing it earnestly on the consideration of members, they deem it necessary to make only a few additional remarks, most of which have been suggested by experience derived subsequently to its publication.

In the first place, then, they beg to call the attention of the House to the general principles therein propounded for regulating its decisions on amalgamation bills; and with a view to carrying out in detail some of those principles they recommend—

That “general powers of granting or accepting a lease or sale of a railway or canal, or of otherwise merging the independence of one company in another not named, should not be allowed to be inserted in any bill.

“Secondly, that the same rule be applied to all bills which contain clauses enabling the companies to lease or sell their tolls or works to any one of a number of railway companies therein specified.

“Thirdly, that a clause be inserted in each bill subjecting all the parties involved in it to all general railway acts.

“Fourthly, that in all instances in which railway companies propose to take powers of amalgamation, the rates and tolls of the amalgamated companies should be subjected to revision.”

At the present time, owing in some instances to a system of low fares being found most profitable, in others to actual or threatened competition, the maximum rates or tolls hitherto imposed by Parliament has not been generally required as a limitation. It is manifest, however, that if a system of amalgamation is to be extensively adopted, the latter inducement to low charges will be materially diminished, if not altogether done away with.

It would be impossible to lay down any precise rule for the guidance of the House in this respect, which would not be subject to numerous exceptions; the decision, therefore, as to the exact limitation of fares must at present be left to the discretion of each committee, to be applied according to the merits of each separate case. It ought, however, always to be borne in mind that the effect of amalgamation is to diminish the expense of working and managing railways, and thereby to enable the proprietors to secure a greater profit on their existing traffic; and in this view of the case it might be taken as a general rule, subject to special exceptions, that the maximum of rates and tolls combined ought not to exceed the lowest rates which had been previously demanded and received by the respective companies. It will doubtlessly be found impossible to adhere rigidly to this rule in all cases. Circumstances peculiar to a particular railway may render it desirable that rather a wider limit should be allowed; but your committee are confident that in a far greater number of instances, especially in those of extensive combinations and of large companies, the limitation which they have suggested would be found to fall short of, rather than to exceed, that which might be justly imposed, with a due regard to the interests of the shareholders on the one hand, and of the public on the other. Your Committee, therefore, recommend that select committees appointed for the consideration of these bills should impose a new limitation of tolls and fares, and specially report any circumstance which may lead them to allow any increase of the rates previously received.

There are several instances now before Parliament of two or more companies applying for powers of amalgamation, whose respective rates and charges vary in amount.

Your Committee submit that it should be the duty of select committees in these cases to exercise much care in the adjustment and substitution of a maximum rate.

Your Committee would strongly urge upon the attention of the House the charges made for the conveyance of coals; their cheapness being of paramount importance to the manufacturing and commercial interests of this country. A glance at the proposed amalgamations in the neighbourhood of

the great coal and manufacturing districts, will at once suggest that if the present competition is to be diminished, on which alone the public have to rely as a security against high charges, it is absolutely necessary that a new limitation of rates should be imposed, at once equal to all parties, and as low as is consistent with justice.

With a view to affording the House the fullest information as to the grounds on which committees have founded their decisions, it would be desirable that a schedule be appended to each report, giving, under the various heads of traffic, the lowest amount of charges made by each company during the two preceding years, and the maximum of those which are allowed in the bill to the amalgamated companies.

Having thus referred to the case of legislative amalgamations, your Committee feel that they ought not to omit to notice that such important lines of railway originally formed by independent companies, and with respect to which no legislative amalgamation has yet been proposed, are at present practically under the same control and management; and so long as these parties feel it to be their interest to combine, all the evils to be apprehended from amalgamation may be produced by private arrangements between them. It is true that such arrangements cannot acquire a permanent character without the sanction of Parliament; but on the other hand they enable the parties, by avoiding an application to Parliament, temporarily to escape the necessity of submitting to those provisions which Parliament may see fit to impose for the benefit of the public as the condition of amalgamation. Your Committee have felt it their duty to advert to this point as one requiring serious consideration; although they are not yet prepared to make any definite suggestion for the purpose of averting any evils which might arise from an abuse of the power derived from these private arrangements.

Your Committee trust that the rules which they have suggested may assist the Select Committee on Railway Groups in their deliberations, and may contribute to the uniformity of their decisions.

As regards the amalgamation of railways with canals, your Committee have not been able as yet to obtain sufficient information to justify them in offering any definite suggestions; but they propose immediately after the recess to enter more fully into that important branch of the subject.

APPENDIX.

Extract from the Report of the Railway Department of the Board of Trade on proposed Amalgamations of Railways; dated Railway Department, Board of Trade, Whitehall, May 7, 1846.

The present unsettled state of the railway system, when almost every day brings forward some proposal for a new railway, or some new combination among existing interests, renders it peculiarly undesirable that permanent amalgamations should be precipitately allowed, unless in cases where the advantage to the public is perfectly manifest. These observations apply principally to the case of amalgamations between railways which have been originally projected and sanctioned as independent undertakings. There is another class of cases where new lines are brought forward by the aid of, and in alliance with, existing companies, who subscribe a portion of the capital, and guarantee a certain return upon it, and take powers to lease or purchase the line when made. In such cases it is evident that greater latitude must be allowed, as otherwise the inducement to the existing company to support the new line would be in a great measure withdrawn, and in many cases the undertaking could not otherwise be supported. In such cases it would appear to be fair to allow an existing company promoting a line sanctioned as an useful undertaking, in exchange for a guarantee on their part to complete what they undertake, to purchase or amalgamate with themselves such small lines as may be considered natural branches of the parent line, and to lease for a long period such larger schemes as they

have promoted. Where such new schemes, however, are of sufficient magnitude to support themselves independently, and are not so intimately connected with the parent line as to be necessarily worked along with it, it may in some cases be advisable to make some provision for the existence of a degree of independence and local management in the new concern; and also for limiting the period during which the union of interest is to exist without the necessity of a fresh application to Parliament. We refrain, however, from entering more particularly upon the details of such cases, since they are necessarily brought fully under the cognizance of the committee on each bill, in the course of the general investigation of the merits of the projected lines which it is proposed to amalgamate with existing companies; and we shall confine our observations more especially to those in which the amalgamation of existing independent companies is proposed, and in which the bearings of the case upon public interests are not necessarily brought under consideration by opposing parties. With regard to these, we incline, under present circumstances and on the whole, to the opinion that such amalgamations should only be allowed where there is a natural and manifest identity of interest for public purposes among the different portions of railway which seek to unite into one whole. For instance, when two or more lines form continuous portions of what is evidently, for permanent public purposes, one great line of communication, or whenever, in fact, there can be no reasonable doubt that, if the whole system were now proposed for the first time, an integral scheme would obtain a preference over separate and unconnected portions, we think that the benefits which we have already pointed out as likely to ensue from unity of management, may be considered as sufficient to justify the sanction of amalgamation under proper guarantees and conditions. But where there is any appearance of any conflict of interest between the companies proposing to amalgamate and the public, and if there be any reason to suspect that the amalgamation is sought as a defensive measure to ward off legitimate competition, or to prevent new and useful projects from being brought forward, it appears to us very undesirable that amalgamation should be permitted. And even in cases where there is no very evident interest adverse to the public at the present moment, but where there is no such natural identity of interest as properly to unite the lines proposing to amalgamate into one whole, we think, that having regard to the present fluctuating state of railway affairs, it would, generally speaking, be more prudent, at any rate for the present, to pause before sanctioning such proposals, and uniting irrevocably, or for long periods, companies whose relations to one another might in a few months have been entirely changed, or which might be discovered to have some unforeseen interests adverse to those of the public. We are the more inclined to recommend this course, as no great evil could result from the postponement of such amalgamations for a year or two, by which time further experience will have been gained, both of the true interests and relations of the company and of the public, as well as of the efficacy of any legislative provisions against undue monopoly. In the present state of experience, it would hardly be wise to trust much to such provisions, unless in cases where they shall be seconded by an obvious coincidence of interest between the company and the public. There is also reason to believe, that many of the benefits sought for by amalgamation may be obtained without unions of this permanent character, by mileage arrangements, arrangements for the supply of locomotive power, and others of a similar description, which would not be open to the same objections; and this, in our opinion, forms another reason why, in cases which are at all doubtful, the more prudent course would be to postpone, for the present, the concession of powers to carry into effect lasting amalgamations.

MR. MOFFATT'S DEPOSIT BILL AS AMENDED.

A Bill (as amended by the Committee) to amend an Act of the second year of her present Majesty, for providing for the custody of certain Monies

paid in pursuance of the Standing Orders of either House of Parliament, by subscribers to certain works or undertakings to be effected under the authority of Parliament.

Monies already paid in to be dealt with as directed by former Act.—Whereas an Act was passed in the second year of the reign of her present Majesty Queen Victoria, intituled, “An Act to provide for the custody of certain Monies paid in pursuance of the Standing Orders of either House of Parliament, by subscribers to works or undertakings to be effected under the authority of Parliament.” And whereas it is expedient that the said Act should be repealed, and should be re-enacted, with such modifications, extensions, and alterations as after mentioned; be it therefore enacted by the Queen’s most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that the said Act shall be and is hereby repealed: provided always, that acts done under the provisions of the said Act shall be good, valid, and effectual to all intents and purposes, and that all sums of money paid under the provisions of the said Act shall be dealt with in all respects as if this Act had not been passed.

Authority to make Deposits.—And be it enacted, that in all cases in which any sum of money is required by any Standing Order of either House of Parliament, either now in force or hereafter to be in force, to be deposited by the subscribers to any work or undertaking which is to be executed under the authority of an Act of Parliament, if the director or person or directors or persons having the management of the affairs of such work or undertaking, not exceeding five in number, shall apply to the chairman of the committees of the House of Lords, with respect to any such money required by any Standing Order of the Lords Spiritual and Temporal in Parliament assembled, or to the chief clerk of the Private Bill Office of the House of Commons, with respect to any such money required by any Standing Order of the Commons in Parliament assembled to be deposited, it shall be lawful for such chairman or such chief clerk, by warrant or order under his hand, to direct that such sum of money shall be paid in manner hereinafter mentioned: that is to say, into the Bank of England, in the name and with the privy of the Accountant-General of the Court of Chancery in England, if the work or undertaking in respect of which the sum of money is required to be deposited is intended to be executed in that part of the United Kingdom called England, or into any of the banks of Scotland established by Act of Parliament or royal charter, in the name and with the privy of the Queen’s Remembrancer of the Court of Exchequer in Scotland, at the option of the person or persons making such application as aforesaid, in case such work or undertaking is intended to be executed in that part of the United Kingdom called Scotland; or into the Bank of Ireland, in the name and with the privy of the Accountant-General of the Court of Chancery in Ireland, in case such work or undertaking is intended to be made or executed in that part of the United Kingdom called Ireland; and such warrant or order shall be a sufficient authority for the Accountant-General of the Court of Chancery in England, the Queen’s Remembrancer of the Court of Exchequer in Scotland, and the Accountant-General of the Court of Chancery in Ireland, respectively to permit the sum of money directed to be paid by such warrant or order to be placed to an account opened or to be opened in his name in the bank mentioned in such warrant or order.

Payment.—And be it enacted, that it shall be lawful for the person or persons named in such warrant or order, or the survivors or survivor of them, to pay the sum mentioned in such warrant or order into the bank mentioned in such warrant or order, in the name and with the privy of the officer or person in whose name such sum shall be directed to be paid by such warrant or order, to be placed to his account there, *ex parte* the work or undertaking mentioned in such warrant or order, pursuant to the method prescribed by any Act or Acts for the time being in force for regulating monies paid into

the said courts, and pursuant to the general orders of the said courts respectively, and without fee or reward; and every such sum so paid in, or the securities in or upon which the same may be invested as hereinafter mentioned, or the stocks, funds, or securities authorized to be transferred or deposited in lieu thereof, as hereinafter mentioned, shall there remain until the same, with all interest and dividends, if any, accrued thereon, shall be paid out of such bank, in pursuance of the provisions of this Act: provided always, that in case any such director or person, directors or persons, having the management of any such proposed work or undertaking as aforesaid, shall have previously invested in the three per centum consolidated or the three per centum reduced bank annuities, Exchequer bills or other government securities, the sum or sums of money required by any such Standing Order of either House of Parliament as aforesaid to be deposited by the subscribers to any work or undertaking which is to be executed under the authority of an Act of Parliament, it shall be lawful for the person or persons named in such warrant or order, or the survivors or survivor of them, to deposit such Exchequer bills, or other government securities, in the bank mentioned in such warrant or order, in the name and with the privity of the officer or person in whose name such sum shall by such warrant or order be directed to be paid, or to transfer such government stocks or funds into the name of the officer or person; and such transfer or deposit shall be directed by the said chairman of committees, or the said chief clerk, as the case may be, in lieu of so much of the sum of money required to be deposited as aforesaid, as the same Exchequer bills or other government stocks or funds will extend to satisfy, at the price at which the same were originally purchased by the said person or persons, director or directors, as aforesaid, such price to be proved by production of the broker's certificate of such original purchase.

Investment.—And be it enacted; that if the person or persons named in such warrant or order, or the survivors or survivor of them, desire to have invested any sum so paid into the Bank of England or the Bank of Ireland, or any interest or dividend which may have accrued on any stocks or securities so transferred or deposited as aforesaid, the court, in the name of whose Accountant-General the same may have been paid, may, on a petition presented to such court in a summary way by him or them, order that such sum or such interest or dividends shall, until the same be paid out to the parties entitled to the same in pursuance of the Act, be laid out in the three per cent. consolidated or three per cent. reduced bank annuities, or any government security or securities, at the option of the aforesaid person or persons, or the survivor or survivors of them.

Re-payment.—And be it enacted, that on the termination of the session of Parliament in which the petition or bill for the purpose of making or sanctioning any such work or undertaking shall have been introduced into Parliament, or if such petition or bill shall be rejected or finally withdrawn by some proceeding in either House of Parliament, or shall not be allowed to proceed, or if the person or persons by whom the said money was paid or security deposited shall have failed to present a petition, or if an Act be passed authorizing the making of such work or undertaking, and if in any of the foregoing cases the person or persons named in such warrant or order, or the survivors or survivor of them, or the majority of such persons, apply by petition to the court in the name of whose Accountant-General the sum of money mentioned in such warrant or order shall have been paid, or such Exchequer bills, stocks or funds shall have been deposited or transferred as aforesaid, or to the Court of Exchequer in Scotland, in case such sum of money shall have been paid in the name of the said Queen's Remembrancer, the court, in the name of whose Accountant-General or Queen's Remembrancer such sum of money shall have been paid, or such Exchequer bills, stocks, or funds shall have been deposited or transferred, shall, by order, direct the sum of money paid in pursuance of such warrant or order, or the

stocks, funds, or securities in or upon which the same may have been invested, and the interest or dividends thereof, or the Exchequer bills, stocks or funds so deposited or transferred as aforesaid, and the interest and dividends thereof, to be paid or transferred to the party or parties so applying, or to any other person or persons whom they may appoint in that behalf; but no such order shall be made in the case of any such petition or bill being rejected or not being allowed to proceed, or being withdrawn or not being presented, or of an Act being passed authorising the making of such work or undertaking, unless the production of the certificate of the Chairman of Committees of the House of Lords with reference to any proceeding in the House of Lords, or of the Speaker of the House of Commons with reference to any proceedings in the House of Commons, that the said petition or bill was rejected or not allowed to proceed, or was withdrawn during its passage through one of the Houses of Parliament, or was not presented, or that such Act was passed, which certificate the said Chairman or Speaker shall grant on the application, in writing, of the person or persons, or the majority of the persons named in such warrant, or the survivor or survivors of them.

LAW INTELLIGENCE.

CONSENT NECESSARY TO PROGRESS OF WORK.

ROLLS COURT, MARCH 28.—*Gray v. the Liverpool, Bolton and Bury*.—The object of the motion was to restrain the defendants from making their railway nearer the plaintiff's mills, land and premises, than the south-east end of Lever Bridge, abutting upon the plaintiff's premises, without the consent of the plaintiff. The 92nd section of the Railway Act expressly provided for the consent of the plaintiffs being obtained, and was introduced in consequence of the refusal of the committee of the House of Commons to proceed with the bill till the plaintiffs were satisfied in some other way. The clause in question was accordingly introduced, and the plaintiffs withdrew their opposition. Before coming to any arrangement, however, the defendants proposed to mark out their railway, and, for that purpose, to enter upon the lands of the plaintiffs, contrary, as was contended, to the meaning of the clause, the construction of which the court was now called upon to decide.—The Master of the Rolls summed up the case at length, giving his opinion that, in the construction of the section, the defendants were not entitled to make the railway till they had concluded their agreement with the plaintiffs.

DIRECTOR OR NO DIRECTOR.

GUILDHALL.—On the 28th ult. Mr. G. Jones, the chairman of the defunct Metropolitan Railways Junction, charged Mr. T. R. Kemp, bill broker, of Abchurch Lane, with having unlawfully acted as a director of the said company, on the 19th of December last, he not being at that time the holder of one or more shares in the undertaking, as required by the provisions of the Joint Stock Companies Registration Act. The charge arose from the check which the panic gave to the payment of railway deposits last November, and Mr. G. Jones being invested by the company over which he presided to proceed against defaulters, he, accordingly, first selected the defendant. The registration of the company, the inserting of Mr. Kemp's name on the list of the provisional committee were proved by Mr. Pritchard, from the Joint Stock Companies' Registration Office, but from the refusal of the solicitor to exhibit the minute books of the company, in support of this evidence, the

first summons was dismissed.—A second summons charged Mr. Kemp with having acted as a director on the 5th of January last. For the defence it was urged that as Mr. Kemp had subscribed his name to the shareholders' contract as the holder of forty shares (although not a farthing deposit had been paid upon them), still he was entitled to that number if he chose to apply for them, and was, therefore, eligible to act as a director.—Mr. Alderman Gibbs agreed in this view of the case, and discharged the second summons also.

WALSTAB V. SPOTTISWOODE.

COURT OF EXCHEQUER, APRIL 22.—This action, which involves a question of considerable importance, was brought to recover from the defendant, as one of the committee-men of "The Direct Birmingham, Oxford, Reading, and Brighton Railway Company," the full amount of the deposits on thirty shares, paid by the plaintiff as one of the allottees of that projected undertaking. It was tried before the Lord Chief Baron, at Guildhall, during the after sittings of last Hilary Term, when a verdict passed for the plaintiff for 78*l.* 15*s.*, by direction of the learned judge.

Mr. Martin now moved, pursuant to leave reserved, to set aside that verdict, and enter a nonsuit. The declaration contained two counts; one on a special contract, by which it was alleged that the defendant was bound to give the plaintiff thirty scrip certificates, on her paying 78*l.* 15*s.*, the amount of the deposits thereon, and on her signing the necessary deeds. The other count was for money had and received. At the trial the Lord Chief Baron expressed his opinion that the first count of the declaration was proved, and directed a verdict for the plaintiff on that count, subject to the decision of this court. The objections urged on behalf of the defendant were, that the contract was not proved at the trial, the only evidence adduced in support of it being the plaintiff's letter of application for shares, which was dated 7th of October, 1845, and the answer of the secretary of the company, on the 18th of that month, stating that thirty shares had been allotted to her. The plaintiff's case rested upon a paragraph in the secretary's letter, but the defendant contended that it was no part of the real contract. The paragraph alluded to stated that "the letter of allotment would be exchanged for thirty shares (or scrip certificates), on the production of the banker's receipt for 78*l.* 15*s.*, and on executing the Parliamentary contract and subscriber's agreement." The defendant contended that this was a mere superfluous intimation, and that the real contract was the acceptance of the offer made by the plaintiff to take so many shares as the Provisional Committee might think proper to allot to her, and to pay the deposits thereon, and sign the deeds. It was now further contended that even if the contract declared on was proved by those letters, the plaintiff could not recover on the first count. The ground of this objection was important, as it depended altogether on the view which the court might take of the extent of liability incurred by a member of a committee, or a director of a railway provisionally registered. Upon behalf of the defendant, it was contended that his liability should be limited to the bounds defined by the 7 and 8 Vict., c. 110, and except there be very clear proof of some actual authority from him to the secretary or to some of his co-committee-men to exceed these bounds. That the 7 and 8 Victoria was passed expressly to regulate joint-stock companies, both provisionally and completely registered, and prescribes precisely the duties of directors in every case, and it was clear and reasonable that their liabilities should be only co-extensive with those duties. The plaintiff's case was altogether silent as to any usage extending that liability—not the least proof was even attempted to be given of any acts done by the defendant which could be construed into an authority from him to the secretary to bind him in his character of committee-man to do anything which the Act of Parliament did not impose upon him the necessity to do. The fact was, that the plaintiff's whole case rested upon the circumstance that

the defendant was a provisional committee-man of this railway, and in that capacity it was insisted on, upon behalf of the plaintiff, that he should be held responsible for the issuing of scrip certificates to the allottees, who had paid the deposits and signed the necessary deeds, or to refund the full amount of the deposits.

Baron Alderson.—I believe the Joint-Stock Companies' Act prohibits the directors of companies only "provisionally" registered from issuing scrip certificates till a certain period.

Mr. Martin.—That is so, but although the Act may appear unintelligible and confused at first sight, yet on considering it a little, it is quite clear that it is decidedly in favour of the views taken by the defendant. Indeed, I believe that not the slightest doubt would exist upon the subject, only for the case of *Woolmer v. Toby*, which was recently tried.

Baron Rolfe.—Do not say "tried"—for that case was not "tried" by me. It went off on a variety of points, which were not decided, at least the principal points involved were not decided by me.

The Lord Chief Baron observed that the case of *Woolmer v. Toby* was tried just as this case was, *pro formâ*.—The real decision on the question raised being reserved for the mature deliberation and judgment of this court. The points raised on both cases were still *sub judice*, and nothing could be said to have been decided in either of them to warrant their being used as authorities on decisions as to the principles involved.

Mr. Martin admitted that both cases had been tried in the manner described, but he should say, in the present case, that the decision at Guildhall was certainly not final.

Baron Alderson.—It appears that the letters upon which the contract is founded allude to a scheme which was then only "provisionally registered,"—does it not follow that, as the plaintiff must be supposed to have cognizance of the law, the contract created thereby must be taken to have been such only as the statute 7 and 8 Victoria, c. 110, warranted the directors in entering into?

Mr. Martin said that that was a fair and reasonable inference; for a man who was only a provisional committee-man could only be supposed to give authority to a secretary to do that which the law authorized him to do himself, and no more.

The Lord Chief Baron.—You may take a rule to show cause.

Mr. Martin then submitted that the verdict could not stand on the second count either. The plaintiff recovered on the ground that the scheme had been abandoned, and that there was an absolute failure of the consideration, in respect of which the deposit money was paid. The ruling of the Lord Chief Baron, at *Nisi Prius*, proceeded upon the authority of the case of *Nockells v. Crosby*; but, without disputing that case, the plaintiff could not recover, as the law had been since completely changed by the statute of Victoria. The fact is, the directors have no power to abandon any railway scheme of which they might have been elected, or wind up its affairs.

Baron Alderson.—Certainly not; otherwise the legislature would not now be framing a law to bring about that result.

The Lord Chief Baron.—If you are right as to the first count, you must also be right as to the second. If, as you state, it would be illegal for the defendant to enter into any contract to issue scrip, the plaintiff cannot enforce a contract to do so, even if it was entered into and proved. Both the counts must, therefore, stand or fall together.

A rule to show cause upon both points was accordingly granted.

DIRECT LONDON AND MANCHESTER RAILWAY.

VICE-CHANCELLOR KNIGHT BRUCE'S COURT.—The case of *Wilson v. Stanhope* was argued. It was a bill filed by the plaintiff, a shareholder, on behalf of the other shareholders of the London and Manchester

Direct Independent Railway (Remington's line), against the directors and provisional committee of that company, and alleged that the defendants have generally neglected the interests of the company, and frustrated the objects of it in favour of the Direct London and Manchester Railway (Raistrick's line), to which they handed over the plans and sections prepared for the rival scheme; and alleges further, that this was done for a personal consideration; and that the deposits paid in on the Remington line were laid out in the purchase of shares in the other company, with a view to keeping up their price in the market; and adds some minor details bearing upon these charges. The case was heard on demurrer, on the part of the Hon. Mr. Stanhope, one of the defendants, on whose behalf the demurrer was argued on a point of equity; and on the question of parties, it was contended that in case a partnership was to be wound up, it could not be brought into court but in presence of all parties concerned. The court decided that the point in equity failed, and overruled the demurrer on the question of parties, without prejudice to any question in the cause, and reserved costs.

The Court of Queen's Bench have refused a rule for a new trial in *Day v. Sharpe*, for labour, &c., as secretary to the East Riding.

Rules for new trials were granted in *Walby* and another *v. Davison*, and *Tucker v. Clarkson*. The former case was for the sale of 100 shares in the Leeds and Thirsk, in which plaintiff had been nonsuited. The latter in an action of trover, obtained by plaintiff for scrip certificates for 25 shares in the Northampton, Bedford, and Cambridge.

Rule was refused in an action, *Mitchell v. Newark*, for the recovery of 15*l.* 10*s.* expended by plaintiff in the purchase of letters of allotment for defendant in the Belgian Eastern Junction.

Rule to set aside the verdict in the matter of *Worth and Frith v. Gresham and Copeland* was accorded. The plaintiffs had been guaranteed for services in surveying the Leeds, Midland, and Lincolnshire by the attorneys of the company. The defendants were provisional directors. The counsel urged, that waiving the objection that the guarantee spoke of a committee of management, and not of a provisional committee, he submitted that the circumstances showed that the provisional committee had not taken up nor adopted the operations which the promoters had authorized; and therefore that the plaintiffs had no claim on the defendants.—Lord Denman said that the defendants might be liable for a part, though not for the whole of the work; and that as the whole question was very important, the rule would be granted.

Last week, in the *Woolmer v. Toby* case, the Lord Chief Justice of the Queen's Bench granted a rule—"that should call on the plaintiff to show cause why the verdict should not be set aside and a nonsuit entered, or why the damages should not be reduced; and further and independently of the leave reserved, why the judgment should not be arrested, or a new trial be had on the ground of misdirection, and of the verdict being against the evidence."—The court also granted a rule for a new trial in the matter of *Garbett v. Adams*, which we mentioned last week.

THE EAST LANCASHIRE RAILWAY COMPANY.—In the Court of Exchequer, on the 21st inst., Mr. Knowles, Q.C., moved, on behalf of Mr. Hutchinson, for a rule to set aside the verdict at the last Liverpool Assizes. The action had been brought to recover a sum of 6,600*l.* penalties for entry upon the plaintiff's land. The court considered the company had acted perfectly *bonâ fide* in the matter, and that under the circumstances they were not liable. The Chief Baron intimated that before disposing of the application, the court would confer with Mr. Justice Coleridge, who tried the case. This being done, the court was unanimously of opinion that the verdict for the company must be confirmed. Rule refused.

BAIL COURT.—On the 17th inst. Mr. Erlam obtained a verdict of 100*l.*

against two attornies, named Davis and Winter, out of 275*l.* which he had paid them on account of 800 guineas, the price of the secretaryship to the Dieppe and Paris Railway, which he was to obtain from their hands, at a salary of 400*l.* per annum. The defendants had no authority to sell the office; the concession of the French Government had never been obtained, and the whole concern had been dissolved.—In the same court a verdict was found for the defendant in the case of *Lloyd v. Harrison*, both attornies and promoters of the London Union, projected last September. The plaintiff sought to fix the responsibility of the money disbursements on the defendant as provisional committeeman, but failed to do so, as he (the plaintiff) had in the outset guaranteed the defendant against all costs, charges, &c., incurred, until payment of the deposits. This verdict has been maintained by the Queen's Bench.

A Mr. White, "a leveller" on the Northampton, Lincoln, and Hull, obtained his verdict of 37*l.* 18*s.* 6*d.*, being a balance due from 50*l.* 8*s.* 6*d.* for services rendered by him as assistant to Messrs. Coe and Mann, surveyors. The principal witness, after speaking of the character of the plaintiff's work, said that a man must be a great idiot if he cannot understand levelling after ten minutes' instruction from a proper person.

RAILWAY MEETINGS.

LONDON AND MANCHESTER DIRECT.

MARCH 4.—A meeting of the inhabitants of Luton crowded the George Inn, to consider projects for supplying the town with railway communication, as put forth by the Direct London and Manchester and London and Birmingham. A deputation consisting of Messrs. W. Lawrence, J. S. Wells, and G. P. Livius, attended from the Direct London and Manchester Board, to explain the intention of that company, and to take the opinion of the inhabitants of Luton respecting them. The Rev. T. Sikes, curate of Luton, took the chair.

Mr. Vyse contended, that the proposed branch of the London and Birmingham was absurd. It went from St. Alban's to Redburn, from Redburn to Dunstable, and thence to Luton. That was not a direct route, that was not what was called for by the interests of the town of Luton. It was all very well for the London and Birmingham Company to make branches for their own benefit; but certainly the branches then proposed would be no benefit to the town of Luton. He moved the first resolution, condemning the proposed branch as injurious.

Mr. W. Bennet said that the direct line would be the best for the town. At the same time, he thought the proposal of the London and Birmingham well worthy their serious consideration. Supposing that the Direct London and Manchester project should fail, was it desirable to cut off the town from all communication with the London and Birmingham Railway? That was a point which they should well consider before they agreed to the first resolution. With these views, he begged to move, as an amendment, that the reference to the Dunstable and Luton branch be left out of the resolution.

Mr. J. Jordan seconded the amendment. The London and Manchester line did not depend on Luton, the latter town being as it were only an atom in the scale. He was quite of opinion that the London and Manchester line would serve their purpose better than any other; but at the same time he could not conceive how they were bound to dissent from any other project, or set their faces against a line to Leighton. He was of opinion that the more lines the better for the town, and he believed that a small branch from Leighton to Dunstable depended more on the good will of Luton, than did the Great London and Manchester line. Their customers did not come

from London but from Leighton; and if that was the case, as he believed it to be, why oppose a line from Leighton to Luton? He knew that there were some manufacturers from London, whose interest it was to have communication between Luton and the metropolis; but his interest lay in Leighton, and let every man advocate his own interest; that was his principle.

Mr. Willis insisted that Luton ought not be contented with a mere slope. They must oppose the slope, and have a direct line or none at all. The Direct Manchester had always clung to Luton, and refused amalgamation, because Luton was left out. He was opposed to the monopoly of the London and Birmingham; they were entitled to a direct line.

Mr. C. Barr said that the proposed extension of the London and Birmingham was not to be entertained for a single moment. Now was the time to oppose it, because he understood that the London and Manchester line was delayed for the present session; and if the branch was now conceded, it would be used as an argument against the direct line afterwards. He thought that the opinions of Luton and the other towns along the line ought to be at once taken, in order to influence, if possible, the decision of Parliament. He moved a petition against the branches proposed.

Mr. J. Walker seconded the motion.

Mr. Burgess denied that Luton was only an atom in the scale.

Mr. How thought they would be far better off without the paltry branches.

Mr. Willis moved the next resolution, in favour of the London and Manchester line. He said that their customers came from London, from Manchester, from Liverpool, from Dublin, and they came through Leighton, because they had no other route. The direct line would connect Luton with the two greatest towns in the empire—Manchester and London. He would rejoice at their connexion with Manchester. He loved its very name, because it was there that the masses of the people found remunerative employment. There was no town which had risen so much within the last ten years as the town of Luton. At present they could show 25,000*l.* annual traffic, and he expected to live to see it 50,000*l.* He did not hesitate to say that Luton would yield 50,000*l.* annual revenue to the London and Manchester Railway. It was a question of great national importance, whether if certain rich men invested six or seven millions in a railway, they were to divide 10 per cent., not knowing what to do with their money, and keep people's lives in jeopardy by compelling all the world to travel on their line. It was preposterous, it was monopoly, and they should oppose it.

Mr. J. Jones seconded the resolution, which was carried unanimously.

Mr. Lawrence, director of the London and Manchester, Mr. Livius and Mr. Wells, extolled the superior merits of that line, and thanked the meeting for their reception. A petition to Parliament in favour of the Direct Manchester, and opposing the branch of the London and Birmingham, was resolved upon.

BELGIAN EASTERN JUNCTION.

MARCH 12.—Mr. S. Lamert in the chair.—The chairman stated that the deputation had waited on the Directors, in pursuance of a resolution passed at the last meeting, and he must say, that every information had been given by them as to the state and prospects of the company; indeed, they had given a very good account. He would read to the meeting the questions of the deputation, and the answers which the directors had given. The first question was, "How many shares were allotted to the public, and what number were paid upon?" This, the chairman believed to be the most vital question of the whole. The answer was, that "more than three-fourths of the shares have been paid upon, or rather above 30,000*l.*" The next question was, "Has the concession or caution money been paid to the Belgian

government, or, how much are the directors under obligation to pay at any specific time?" The answer was, "30,000*l.*, or 750,000*f.* were deposited about the 20th of February." The next inquiry was, "Was there any money paid or permitted to be paid for concession, when obtained from the Belgian Government; or any terms entered into by the directors; and if so, what were they?" He (the chairman) had put that question in consequence of an application from a large holder of shares, who believed that a large amount had been paid for concession. The answer was, "that the Belgian Government having promised the concession to a third party, the directors agreed to purchase it for 12,000*l.* down, and 3,000*l.* more when the concession should be obtained. Some of the directors were concessionnaires." The next question was, "Is this 12,000*l.* returnable in the event of this concession not being obtained, and have you considered that you had a perfect right to pay that 12,000*l.*?" The answer was, "Yes, we do, and the shareholders will not be called upon to pay the 12,000*l.* if the concession be not obtained; but the 12,000*l.* will be forfeited." He considered this to be an extraordinary bargain; it appeared, however, that the sum in the event of forfeiture would be paid by the directors, and that proved that they calculated upon obtaining the concession. He then came to the next question—"Is that money subject to forfeiture in the event of the Belgian Government proposing an improvement of part of the line?" The answer was, "We apprehend so; but the return of the money rests entirely with the Belgian Government, as the amount was deposited as a guarantee that the works as originally proposed would be executed." The next question to the directors was—"Is it your opinion in the present state of the share market, and of Belgian lines in particular, and also in the face of the inability and disinclination on the part of a large portion of the shareholders, that it is advisable to proceed with the undertaking?" Now this question the directors had declined to answer, although it was in a moral point of view a very important one. The next question was as follows—"Do you recognise the right of the shareholders to abandon the further prosecution of the undertaking?" Their answer was that they did not recognise the right. The chairman then said, the question seemed to him to be, whether the directors, having received only three-fourths of the capital, ought to have taken their present course.—Mr. Head, a director, had urged upon his brother directors to call a general meeting, to consider whether it was expedient to go on or not. He was informed that the directors had resolved to pay the caution money in Brussels. On this he and Mr. Garnett wrote to Messrs. Hopkinson, the bankers, requiring them not to pay over the money deposited in the name of the directors, without express authority. To this letter the Messrs. Hopkinson sent a reply that they had referred the letter to the Belgian Eastern Junction Board.—After discussion and some opposition, it was resolved, on the motion of Mr. Fields, that the shareholders wished to abandon the undertaking.—Mr. Fields next moved "That the directors be requested to take the necessary steps to withdraw the application for a concession, and to procure a return of the deposits."—Mr. Forster seconded the motion, which was agreed to.—Mr. Elphinstone moved a resolution, to the effect, "That, in the event of refusal or neglect on the part of the directors to adopt this course, a petition should be presented to the Belgian Chambers on the part of the shareholders."—This, being seconded by Mr. Barton, was also agreed to.—On the motion of the chairman, it was resolved, "That these resolutions should forthwith be communicated to the directors, and that the meeting should adjourn till Tuesday the 17th inst."—It was understood that the above resolutions would be forwarded to the Belgian Minister.

NAMUR AND LIEGE.

March 17.—First Half-yearly Meeting.—Mr. A. Spottiswoode in the chair.—He alluded to the merits and origin of the line, which was to have been taken up by a private company; difficulties, however, arose, and (Mr.

Rennie having given, after inquiry, a favourable report) a public company was formed, and the shares issued to the public; one fifth being taken by the concessionnaires; 1,000 each by the Directors, and 8,000 being allotted to Belgium. It was settled that the first 5 per cent. of profits should be divided among the public in England; but in consequence of a representation to the concessionnaires, it was agreed that they (the public) should have 6 per cent. The Directors had gone over to watch the progress of the bill through the Chambers, and it obtained the royal assent on the 12th of August. They were now at work, and hoped to have, in August, the nine best miles of the line open. The shareholders would observe one item in the accounts to be a loan. This had not been raised because they anticipated any difficulty in getting the necessary money from the shareholders in the regular way, but it had been found more convenient. It had been borrowed at 4, and invested at $4\frac{1}{2}$ per cent., so that it had proved a benefit. Nearly all the shares had been paid upon, except a few hundreds, which had been satisfactorily accounted for.

The Secretary (Mr. J. Cary) read the Report, which declared the Company to have been continually protected by the Belgian Government and the population of the country. The line from Namur to Liège will communicate at its extremities with the railway from Brussels to Braine-le-Comte and Namur, and with that from Brussels to Louvain, Liège and Cologne. It is situate in a rich valley for the whole of its length. The provisional contract has been settled at 17,725,000*fr.*, and has been undertaken by contractors in Belgium of wealth and character. Of the line from Mons to Manage (which is part of the company's undertaking) the Report states that it will be double, and laid down over immense coal-fields. It will be united to the government line at both extremities, and will equal the traffic of the Namur and Liège. The cost has been settled at 7,160,000*fr.*, and a contract has been entered into. Lines of easy gradients, such as that from Brussels to Antwerp, having produced from 10 to 12 per cent., the lines of the present company may be considered to be of that class, and calculated to produce large revenues, augmenting as industry and commerce are further developed. In conclusion, the shareholders have received interest at the rate of 4 per cent. upon the paid-up capital, and the precautions adopted in the investments of money have enabled the directors also to discharge the preliminary expenses up to the 5th March, 1846. It also directs the attention of shareholders to the Report of Mr. Rennie. The accounts show the summary of the capital account to be 216,000*fr.*, and the construction account 228,864*fr.*

The Chairman in answer to questions stated that they had bought the lease of the premises in Moorgate Street for 1,662*l.* for twenty-one years. The qualification for a director was 100 shares. They did not all hold the 1000 shares which it had been agreed that they should take up. The Report was then adopted, and the appointment of Mr. Greig, in lieu of Alderman Copeland, confirmed.

JAMAICA SOUTH MIDLAND JUNCTION.

March 19.—General Meeting.—Mr. A. Hawkes in the chair.—A Report of the provisional committee was submitted, which stated that the estimates of Mr. Miller, the engineer, showed that 400,000*l.* would be the utmost possible cost of the line. It entered into an estimate of traffic, by which a revenue of more than 8 per cent. on the assumed cost was prognosticated. The Jamaica company would work the line upon fair terms. A call of 2*l.* per share would open the line as far as Old Harbour. Out of 20,000*l.* deposit a balance of 17,000*l.* remained at their banker's.

LIANAKESHIRE AND LOTHIAN.

March 24.—At a meeting of the shareholders it was agreed that a memorial be addressed to the directors, requesting them to wind up the company; or,

at all events, not to take any further steps for prosecuting the bill in Parliament until the consent of a majority of the scripholders should be obtained, at a public meeting called for the purpose.

FORTH AND CLYDE JUNCTION.

March 24.—A meeting of the shareholders.—A resolution was passed to request the directors to call a general meeting of the shareholders and scripholders on an early day, to decide as to whether any further steps should, in present circumstances, be taken in Parliament in reference to the bill.

AYRSHIRE AND CALEDONIAN.

March 26.—Meeting of shareholders at Glasgow.—Mr. Henry Dunlop in the chair.—The minutes of the provisional committee were read, from which it appeared that about the 12th current a requisition had been received from a number of the shareholders, requesting them to call a general meeting for the purpose of considering the propriety of winding up the undertaking, on account of the present state of the money market, previous to incurring further expense in Parliament. In the mean time, two of the committee, Lord Eglinton and Mr. Bain, had held a conference with the directors of the Caledonian Extension, with the view of ascertaining if they would be willing to take up the scheme, or give a guarantee upon it; but, under present circumstances, they had declined to accede to the proposal.—Mr. Dunlop said this line was like several others. In many respects it was desirable that it should be executed for the sake of the district, and it would very probably be remunerative; but so many railways had been proposed, and the money market was in such a feverish state, that it would be difficult to raise the funds, even though they should procure the bill. In these circumstances, they thought it prudent to pay back as much as they could wind up.—Mr. Drummond agreed that it would be impossible to get the instalments paid up, even though they should obtain their Act, and after a brief speech, moved that the committee should be dissolved; and, in the mean time, until the expenses were made up, the committee should return a dividend of 2*l.* per share.—Mr. Greenwood seconded the motion, which was supported by other gentlemen, and unanimously agreed to.

PERTH AND INVERNESS.

March 27.—A meeting of the scripholders and original shareholders.—Mr. Davidson, writer, acting for parties holding to the amount of 280 shares, explained that he had called the meeting for the purpose of having the concern wound up. Resolutions were passed to the effect that, in the altered state of the money market, it was advisable to proceed no further in the measure, but to return the deposits less the expenses, giving scripholders a preference should the scheme afterwards be resumed; and that the secretaries, directors, and provisional committee be requested to give effect to the preceding resolution, and scripholders and shareholders not present requested to concur in the application.

HUDDERSFIELD AND SHEFFIELD.

March 27.—Half-yearly Meeting.—Mr. J. Armitage in the chair.

The Secretary read the Report, which stated that all matters connected with this undertaking are proceeding prosperously. The balance sheet produced will show that the finances of the railway are in a satisfactory state, and the Report of the engineers will explain the progress which has been made in the works. The purchase of land for the purposes of the railway is proceeding steadily. The agreement for amalgamation with the Manchester and Leeds Company, sanctioned at the last meeting, is now being carried out by Act of Parliament; the bill has been read a second time; the directors

had received ready counsel and assistance from the Manchester and Leeds directors, and the two boards are on the most friendly terms. The agreement for amalgamation requiring that three Manchester and Leeds directors should take seats at the Huddersfield and Sheffield Board, Messrs. Yates, Blake, and Bradley have retired in favour of Messrs. Pollard, Wickham, and Akroyd, who have qualified and become directors. An alteration has also taken place in the appointment of engineers. Mr. Jee, the former engineer, has tendered his resignation, which has been accepted. The directors have appointed Mr. Hawkshaw, the engineer of the Manchester and Leeds, in his place. Mr. Mallorie still continues resident engineer, and the directors can bear testimony to the attention which Mr. Mallorie has paid to the works generally. Mr. Butterworth having resigned the office of auditor in consequence of his joining in the directory, Mr. W. W. Batty has been appointed in his stead. The proprietors will doubtless be aware that the West Riding Union scheme, in which the proprietors, by virtue of their shares in the Huddersfield, Halifax and Bradford Union, are deeply interested, has been allowed to commence proceedings in the House of Commons *de novo*. The directors can announce on good authority that the objections on Standing Orders now taken against that scheme are exceedingly trifling; but as the directors may not have an opportunity of meeting the shareholders until the fate of the West Riding Union has been determined, they would urge the shareholders to a consideration of the motives which induced the directors to negotiate with the Manchester and Leeds, and they would call upon the shareholders by their exertions in favour of the West Riding union, to enable the directors to consummate the great end of the amalgamation—namely, the general benefit of the Manchester and Leeds, and thereby of the Huddersfield and Sheffield, as Manchester and Leeds shareholders on the one hand, and on the other, of rendering the town of Huddersfield by its station, the great focus to which all West Riding south traffic shall radiate before it be forwarded by the Huddersfield and Sheffield to the south. It may here be mentioned, that in the distribution of the 3,760 Huddersfield, Halifax and Bradford Union shares among the Huddersfield and Sheffield shareholders, the fractions incident to such distribution left 218 shares at the disposal of the company; and the directors have at this meeting to take the opinion of the shareholders as to the mode in which these 218 shares shall be disposed of. The directors report that the Darfield branch bill has been read a first time in the House of Commons. An amicable arrangement has been made with the South Yorkshire Coal Company, the effect of which will be to secure a permanent supply of coal to this district, on the most advantageous terms. The directors think it proper to embody in their Report that they have recently determined upon allowing interest on all calls paid in advance, and they have reason to believe that this arrangement will be attended with beneficial results. In conclusion, the directors have to congratulate the shareholders on the present state and prospects of the undertaking, and they assure the shareholders that no pains shall be spared to advance the interests of the proprietary.

The Report of the engineers stated that the whole of the centre line of railway had been set out, and the works let to Messrs. Miller and Blackie, who had executed a considerable amount of work, and commenced operations on nearly every part of the line. The Report then stated in detail the progress that had been made with the various tunnels, viaducts, and other works on the line.

Mr. Moore exhorted the directors to go ahead in the formation of the line, and expressed his astonishment that any one should wish to stop the wheels.

NEWCASTLE AND CARLISLE.

March 27.—Annual Meeting.—Mr. M. Plummer in the chair.

The secretary, Mr. Adamson, read the Report. The accounts showed that the receipts of the year for goods, passengers, &c., amounted to

87,822*l.* odd; the expenses of management being 33,613*l.* 10*s.* 1*d.*; interest on various loans, 31,243*l.* 2*s.* 6*d.*; balance carried to profit and loss account for the year, 21,149*l.* 19*s.* 7*d.* A sum of 52,675*l.* 10*s.* 5*d.* was applicable to a dividend, and 62,066*l.* 5*s.* 1*d.* remained as a balance at the debit of formation.

The chairman congratulated the shareholders on the Report. They were now clear of the Exchequer Loan Commissioners, and the increased expenditure only arose from increased traffic on the line, the result of a reduction in their dues. They would observe the directors were endeavouring to procure an Act of Parliament to enable them to carry a line up the North Tyne to Woodburn, and also to make a branch into the Alston district. The directors had not allowed themselves to be forced on by the excitement of the moment with respect to branches from their line, but preferred waiting until a favourable opportunity occurred for bringing those extensions forward; and he was afraid that it would be found that many new schemes for the formation and extension of lines of railway would be unremunerative; those branches which the directors of this line recommended were not only legitimate undertakings really belonging to the mother-line, but would amply repay the outlay required for their formation. The districts of North Tyne and Alston were rich in mineral treasures, the conveyance of which would greatly add to the revenue of the company. A rival line, it was true, had been projected, but he thought the parties connected with it would find it their interest to abandon it. In going from Hexham to Woodburn this company would require to form about fourteen miles of railway, but then it would have the advantage of twenty miles of railway already formed, so that by forming fourteen miles of railway the company would derive a revenue from thirty-four to thirty-six miles. The same might be said in respect to the Alston branch. Although they would have seventeen miles of railway to form from Haltwhistle to Alston and Nenthead, they would derive an increased revenue on their line from Haltwhistle to Newcastle, or from Haltwhistle to Carlisle, in addition to that obtained from the branch line. This company would therefore be able to work these branch lines profitably, while an independent company would be unable to do so. The bills had been read in the House of Commons a second time, and before going into committee it was necessary that the consent of the shareholders should be obtained, for which purpose they should shortly be convened, and then they might withdraw the bills if they did not consider them advantageous to the company; but that was a course which none of the shareholders, he was confident, would be inclined to adopt. They were aware that considerable progress had been made in a work which they had been looking forward to for years. The company had bought ground of the corporation of Newcastle at the Spital, ten or twelve years ago, in the hope of having a central station there for all the great railways of the districts.

On the motion of the Rev. J. Collinson, seconded by Mr. C. J. Angas, the report was received and adopted.

A dividend of 2*l.* 10*s.* per share, as recommended by the directors, was declared, to be free from property-tax, and payable in April.

JAMAICA.

March 27.—First General Meeting.—Mr. T. C. Ewart in the chair.

The Secretary read the Report. The formation of the company took place in 1844. Mr. G. M. Miller was then appointed engineer, and the line of rails and a portion of the Kingston station having been completed in November last, the railway was opened for passenger traffic between Kingston and Spanish town on the 24th of that month. The total expenditure of the company to the 16th instant amounted to the sum of 130,322*l.*; and from the recent estimates the entire cost of the line from Kingston to the Angels (16 miles), together with the extensive wharfs, stations and workshops in Kingston station in Spanish Town, seven locomotive engines, and the ne-

cessary supply of carriages and waggons, will be covered by the capital of 150,000*l*. The receipts for twelve months subsequent to the opening of the line (and including the month of January, the dullerest month in the year) have been 4289 first class, 9053 second class, and 23,686 third class passengers; 3,169*l*, or at the rate of 13,733*l*. per annum, independent of the sum of 335*l*. received during the same period for light packages. The necessary acts had passed the Jamaica legislature for the formation of two additional continuations of the present line. During the last session of the Jamaica Legislature a petition was presented and leave obtained to bring in a bill for the construction of a line from Port Henderson to the Angels. The object was to connect the parish of St. Thomas-in-the-Vale with the harbour of Kingston at Port Henderson, the place heretofore used for the embarkation of the district produce. This was opposed by the Jamaica Railway Company, as an infringement of the privileges of their Act of Incorporation, and the result was, the purchase of Port Henderson by this company for the sum of 5,000 guineas. The present meeting was called upon to create 50,000*l*. additional capital, in 1,000 shares, to be allotted to Mr. W. Smith, as in the terms of the original prospectus. The directors concluded by recording their sense of the efficient services of Mr. D. Smith, the manager, and Mr. Miller, the engineer.

The report was unanimously adopted, and the present directors retiring from office were re-elected.

DURHAM AND SUNDERLAND.

March 30.—Half-yearly Meeting.—Mr. C. Bramwell in the chair.

The Report and Accounts were read by Mr. Tiplady, the law clerk. The receipts had been from the leading of 78,451 chaldrons of coals, 12,990*l*.; 96,106 passengers and parcels, 2,887*l*.; merchandize and ballast, and the rents of property at Sunderland, 4,284*l*. The disbursements were, for fixed engine and loading charges, upholding the way, shipping charges, miscellaneous expenses, passenger department, general and ballast charges, 12,196*l*. which, with charges for interest, &c., made the disbursements 15,411*l*. The profit on the half year was 1,864*l*.

No dividend was declared, as 1,400*l*. had been drawn upon for the dividend on the preceding half-year, which only left the small balance of 400*l*.

SHEFFIELD AND MANCHESTER.

March 31.—Half-yearly Meeting.—Mr. J. Parker, M.P., in the chair.

He observed, that the railway, since the opening of the line throughout, had been satisfactory. But as yet they were somewhat deficient in the heavy luggage waggons. When this deficiency was made up, (as he hoped it soon would,) he had no doubt that the best hopes and expectations of the company would be realized. On the subject of the retiring directors—himself, Mr. Perry and Mr. Bradley—he observed that Mr. Perry had been for a considerable time in Ireland, whither his engagements called him; and that he had wished that some other person should be appointed. It had, therefore, been suggested that Mr. C. Turner, of Liverpool, should be appointed in the room of Mr. Perry; but this was a matter which rested with the proprietors who were present.

It was agreed that, more than half the capital to be raised by shares under the company's Acts and the 6th and 7th Vict. having been paid up, the company sanctions the borrowing 30,333*l*. beyond the amounts borrowed under former orders of the company;—that the Huddersfield and Manchester Railway and Canal Company having withdrawn from the proposed amalgamation, the meeting concurs in the expediency of maintaining friendly relations and a pecuniary interest in that undertaking, and also sanctions the purchase of certain shares on the company's account, and all future acts and payments for securing to the company the full benefit thereof.

LONDON AND BRIGHTON.

April 2.—Special Meeting.—Mr. P. St. Lager, in the chair.

The chairman put resolutions sanctioning the amalgamation with the Croydon Company, and the following branches from the Brighton line to East Grinstead, Dorking, Wandsworth, and Littlehampton; and the Brighton, Lewes, and Hastings, and Portsmouth Extension lines. The resolutions were carried.

LONDON AND CROYDON.

April 2.—Special Meeting.—Mr. Wilkinson, the chairman, read resolutions sanctioning the following bills:—To unite the London and Croydon Companies, with the undertakings belonging to them; to construct a branch from the Croydon Railway to Deptford, and a wet dock, and other works connected therewith; and to make an extension of the Croydon and Epsom Railway to Dorking in Surrey. A discussion arose with regard to the increased number of directors consequent upon the union of the two Boards, a proprietor making an objection which, he believed, was generally entertained, that the number of sixteen was too large. The chairman said, a clause in the bill would be submitted to them, by which the number was limited to sixteen; but with regard to any modification in the committee, he thought there would be some difficulty raised by the Brighton proprietors, although the limitation was sanctioned by the Brighton directors. He thought it would be imprudent to come to any resolution which might run counter to the opinion of the Brighton Company. For himself, he concurred in the opinion that sixteen directors were too many.

The question was left to the decision of the directors. The first resolution, for the amalgamation of the two companies, having been carried, the Chairman put the second, for the Deptford branch, saying that the line was a short one, about a mile in length, and to be constructed on the atmospheric principle. It was to extend from New Cross to the Victualling-yard at Deptford. A large traffic was anticipated. The line had been agreed to by both companies. The expense would be about 33,000*l*.

The resolution was carried.

FURNESS.

April 21.—Special Meeting.—Mr. B. Currey in the chair. The bill now before Parliament for extending the line to Broughton and Ulverstone were approved of. The united length of these extensions will be nine miles. That of the main line, a single one to be opened next month, throughout is 14 miles. There are two short branches to some iron mines.

THE STATE OF THE MONEY AND SHARE MARKETS FOR THE MONTH OF APRIL.

THE events of the present month have so fully confirmed the opinions we expressed in our last review of the money market, as to the impossibility of finding an *unlimited* amount of capital for railway construction with *limited* banking and currency laws; the conviction with which our minds have been so long imbued, that if the legislature did not interfere to limit the liabilities of individuals, wide-spread misery would ensue, has at length found vent in public opinion; and our advice to the monied, commercial, and railway interests, to unite in one common bond and put an end to a state of things, which, if suffered to continue, would have involved them all in one common ruin, has been followed by petitions of the most urgent nature to the legislature; till at length, urged by petition from without, and apparent

unanimity within the walls of Parliament, the Government have at length taken the initiative, and have brought forward measures which virtually will reduce railway schemes within reasonable bounds, and enable the public to relieve themselves from their liabilities.

The measures of Government resolve themselves under two heads :—

1st. With regard to railways which are now before Parliament.

2nd. With regard to railway companies provisionally registered, but which have not reached Parliament, and never will.

In regard to those schemes before Parliament which involve a capital of nearly three hundred millions of money, and on which nearly fifteen millions have been actually paid, Parliament has passed a series of sessional resolutions, which have all the effect of a standing order. (These resolutions will be found at page 378 of our present Number.)

In regard to those railways which are only provisionally registered, the Government will introduce a bill having for its object the enabling shareholders to wind up the companies, and thereby get rid of their liabilities.

In the first place, power is to be given to a small number of shareholders to call on the managing committee to convene a meeting, in order that the sense of the proprietors should be taken on the question of the dissolution of the company.

When the meeting takes place, persons may vote in person or by proxy, on the production of the scrip certificate ; and supposing one-third of the whole stock to be represented at the meeting, three-fifths of the stock present would be competent to direct the dissolution of the company.

Trustees are to be named, with power to wind up the affairs of the undertaking in the way of an ordinary partnership.

The trustees will have the power to possess themselves of the funds of the company, and, after discharging the liabilities, to apply the surplus (if any) *pro rata*, among the shareholders.

In case the funds of the company should not be sufficient to cover all the liabilities, then the person who took possession of the funds should apply them to the reduction of the liabilities, and for the rest, it must be left for those who trusted an insolvent company to seek their redress by law.

These measures will have the effect of lessening the liabilities of the public, and by relieving the railways from the rubbish which impede their progress, we have not a shadow of a doubt, every good scheme will eventually be carried ; and the public may be assured, that by limiting the amount of capital to be annually applied to railway construction to what can conveniently be spared from the surplus savings and capital of the country, railways will be much sooner constructed than under the present chaotic system, a system which commenced in fraud and has ended in disaster.

Already we perceive greater confidence in the monied world, and as the liabilities lessen, confidence will, as a matter of course, increase.

The distribution of the deposits must necessarily be a work of time, and consequently its gradual operation will allow the Bank of England gradually to lessen their securities. We feel now but little uneasiness as to the future ; it is true that there are at least two millions of money per month to be found for the railways for which Acts have been obtained, and we estimate that this drain will continue for the next three years, even if Parliament did not grant a single railway bill this year, which would be by far the most prudent course to pursue. We think that by dint of the old companies taking up money on debentures, and from the increased confidence of the public, this amount of capital may be found ; but we cannot look forward to money becoming abundant ; a steady demand will exist for it for many years to come—but ruin and panic will now be averted.

We stated that we perceive greater confidence arising ; money is certainly easier in the discount markets ; the principal brokers will not allow more than 3 per cent. for money on call. The funds, since the measures of Government have been made known, have improved ; and although, from the high

price at which they are, and the low rate of interest they pay compared to many railways of undeniable security, it is scarcely possible they can improve materially, still the violent pressure which would assuredly have fallen on them if the Government measures in regard to railways had been much longer postponed, will now be averted.

The purchases on account of the savings banks, on account of the sinking fund, and the constant absorption of stock by insurance offices and trust funds, will tend to maintain the price of the funds and take off that stock which will be brought to market as the public exchange their funded for railway property.

Altogether our view of the future is much less gloomy than it has been for months past; we trust the public, at least that portion which is unfortunately involved in railway liabilities far beyond their means, will take advantage of the measures proposed by Government in order to relieve themselves; if they do not, they will look for commiseration in vain, and ruin will assuredly overtake them.

If the holding of railway shares is necessary for their happiness, let them invest in the shares of the old lines, which are selling at prices which will pay them a higher rate of interest than they could possibly have hoped to attain if their most sanguine expectations had been realized in regard to their new lines.

We have no doubt but that the prices of the shares of the established lines will improve—since the promulgation of the Government measures they have improved; all idea of competing lines must now for ever be abandoned. The London and York scheme will merge in the Eastern Counties Railway, by which many millions of useless expenditure will be saved.

A great majority of the shareholders of the London and York scheme are determined to force their directors into an amalgamation—of course the directors will resist to the last, as visions of power, such as the spending, however uselessly, some fifteen millions of money, cannot be relinquished without a pang.

As for the Manchester Direct, and Portsmouth Atmospheric Direct, the first will be wound up, and the Atmospheric of Samuda has proved so lamentable a failure that no shareholders will be found mad enough to waste more money until a system more perfect can be brought into action. Hallett's will soon be put to the test.

The shares most likely to improve are the York and North Midland, the Midland, the London and Birmingham, the South Western, the Eastern Counties, and the Great Western if they would abandon their aggressive spirit.

In foreign lines, the West Flanders, of which we hear Mr. Robert Stephenson expresses the most favourable opinion, and the Dutch Rhenish.

All these are safe investments, and, indeed, the public cannot do very wrong in investing in any of the established lines.

Altogether railway property bears a much more favourable aspect than for months past; and, barring any political disaster, there is every prospect of an improvement in the price of shares.

In confirmation of this opinion, the last two accounts in railway shares show that there is no pressure of shares in the market; the jobbers are evidently short of the stock of the established lines, and the rate of money paid to carry them over from account to account was very easy.

A reference to our stock and share lists will show the fluctuations which have taken place. If anything were wanting to prove the ruin that awaited the public, if some check had not been given to the passing of new lines of railway, we have only to point to the lamentable discount of those lines which last year obtained their bills and are now in the course of construction; the reason of this is, the inability of the public to meet the calls, and the consequence is, they are obliged to sacrifice their shares for whatever

they will fetch. If this is the case with the lines which really have merit, what would have been the result if no measures had been taken by the legislature to check the unlimited amount of railways which only required its sanction to become facts instead of fictions, and which, although they would never have been constructed, would have involved their shareholders in irretrievable ruin.

The gross Receipts of Railway Traffic, made up from the week ending March 28th, to the week ending April 18th, showing likewise the Traffic of the corresponding weeks of 1845.

Total amount authorised to be raised.	Total amount already expended.	Last dividend.		NAME OF RAILWAY.	1846.	1845.
		Per share.	Per cent. per annum.			
£	£	£ s. d.	£ s. d.		£	£
160,000	140,203	—	3 10 0	Arbroath and Forfar.... Returns imperf.		730
1,441,163	1,537,367	3 0 0	6 0 0	Birmingham and Gloucester.. Returns imperf.		
—	667,623	{ 20s., 12s., 13s., 6d. }	4 0 0	Bristol and Gloucester..... Returns imperf.		
800,000	569,362	{ 12s., 6d. }	2 12 0	Chester and Birkenhead .. Rets. imperf.		2,948
—	631,258	1 4 0	3 14 0	Dublin and Drogheda.....	2,494	2,415
270,000	348,736	—	2 0 0	Dublin and Kingstown	2,974	3,363
300,000	153,598	3 0 0	5 0 0	Dundee and Arbroath.....	1,110	1,082
302,000	308,118	0 10 0	2 0 0	Durham and Sunderland	2,190	2,456
4,644,621	4,090,323	{ E 9s., N., 22½s. }	{ E. 6s., N. 2s. }	Eastern Counties and Northern and Eastern	29,637	17,061
1,600,000	1,666,226	1 10 0	6 0 0	Edinburgh and Glasgow.....	11,784	9,063
1,453,500	1,104,773	1 10 0	6 0 0	Glasgow, Paisley, and Ayr.....	7,894	6,487
686,696	906,134	0 5 0	2 0 0	Glasgow, Paisley, and Greenock	3,366	3,949
2,364,533	2,567,317	5 0 0	10 0 0	Grand Junction, amalg. with Birmingham.		34,100
—	82,828	—	—	Gravesend and Rochester.....	750	
1,730,000	1,396,196	5 10 0	6 0 0	Great North of England .. Rets. imperf.		8,100
8,160,000	8,179,980	3 4 0	8 0 0	Great Western	68,906	60,103
—	—	—	—	Hartlepool	3,153	
—	701,740	1 10 0	6 0 0	Hull and Selby, amalg. with York & N. Midland		
2,637,375	1,774,331	5 0 0	10 0 0	Liverpool & Man., amal. with Bir. .. Rets. imperf.		
6,412,600	7,417,317	5 0 0	10 0 0	Lond. and Birm. & Grand Junc. 136,564	66,965	
1,086,606	1,076,761	0 2 6	1 10 0	London and Blackwall	3,138	3,700
2,920,000	2,653,673	1 15 0	7 0 0	London and Brighton.....	16,186	14,664
991,333	949,568	0 7 0	3 10 0	London and Croydon	5,248	4,226
4,212,000	2,630,734	2 2 6	10 4 10	London and South Western .. Rets. imperf.		21,940
2,893,000	2,197,588	1 3 10½	6 2 4	Manchester and Birmingham ..	16,463	17,839
4,743,333	3,373,240	2 18 0	8 0 0	Manchester and Leeds..... Returns imperfect		
650,000	842,725	2 14 0	5 16 0	Manchester and Bolton, & Bury	4,030	3,634
6,316,800	6,636,105	3 13 9	7 7 6	Midland	62,046	40,580
1,250,000	1,137,385	—	5 0 0	Newcastle and Carlisle	6,897	5,901
—	1,273,031	1 2 6	9 0 0	Newcastle and Darlington ..	10,916	4,748
910,000	316,969	1 5 0	5 0 0	Newcastle and North Shields ..	1,566	1,549
—	573,618	3 10 0	5 0 0	Norfolk	4,928	1,003
—	1,060,661	3 7 6	6 15 0	N. Union & Bolton & Preston, amalg. with Man. and Leeds.		
450,000	432,014	0 12 6	2 10 0	Preston and Wyre	2,076	1,514
1,533,000	1,313,225	—	5 0 0	Sheffield and Manchester ..	6,542	2,730
3,817,277	4,284,294	0 16 0	3 4 0	South-Eastern and Dover	23,615	19,650
640,000	646,348	3 3 0	5 0 0	Taff Vale	4,398	3,480
933,038	268,333	—	5 10 0	Ulster	Returns imperf.	2,481
998,696	1,632,629	50s., 25s.	10 0 0	York and North Midland	20,014	10,109
FOREIGN RAILWAYS.						
1,600,000	2,062,916	0 18 9	8 0 0	Paris and Orleans.... Returns imperf.		22,206
1,440,000	—	0 18 6	8 0 0	Paris and Rouen Returns imperf.		18,329

Shares.	Railways.	Paid.	CLOSING PRICES.			
			April 3.	April 11.	April 17.	April 24.
£		£				
50	Aberdeen	10	..	8 — 7 dis	7 — 6 dis	7½ — 6½ dis
100	Amber, Nott., Boston, & E. Jun.	2½	..	..	..	..
25	Birmingham and Gloucester ..	100	124 — 126	124 — 126	124 — 126	124 — 126
20	Do. New (issued at 7½ dis.) ..	17½	30½ — 31½	30½ — 31½	30½ — 31½	30½ — 31½
100	Birmingham and Oxford Jun.	2	½ dis — par	½ dis — par	½ dis — par	½ dis — par
33½	Bristol and Exeter	75	10 — 12 pm	7 — 9 pm	7 — 9 pm	6 — 8 ex d
50	Do. New	3	3½ — 4½ pm	3 — 4 pm	3½ — 4½ pm	3½ — 4½ pm
30	Bristol and Gloucester	30	18 — 20 pm	17 — 19 pm	16 — 20 pm	16 — 20 pm
50	Buckinghamshire	42½	..	..	..	..
25	Caledonian	10	3½ — 3½ dis	3½ — 3½ dis	3½ — 3½ dis	3½ — 3½ dis
25	Do. ½ Shares	2½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
25	Do. Extension	1½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
50	Cambridge and Oxford	1½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
30	Chester and Holyhead	22½	3 — 2 dis	3 — 2 ex int	2 — 1 dis	2 — 1 dis
25	Churnet and Blythe	2	..	..	..	..
50	Cork and Waterford	1½	..	..	..	..
50	Cornwall	3	3 — 2 dis	4 — 3 dis	3½ — 2½ dis	4 — 3 dis
50	Direct Manchester (Remington's)	2½	2 — 1½ dis	1½ — 1½ dis	2½ — 1½ dis	1½ — 1½ dis
25	Do. do. (Rastrick's) ..	5½	2 — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	Direct Northern	1½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	Dublin and Belfast Junction ..	10	6 — 4 dis	7 — 5 dis	6 — 5 dis	5 — 4 dis
40	Dublin and Galway	4	3 — 2½ dis	2½ — 2½ dis	3 — 2½ dis	2½ — 2½ dis
	Dundalk and Enniskillen					
Average	Eastern Counties	14.16.0	30½ — 21	21½ — 21½	22 — 22½	22½ — 22½
14.16	Do. New	6.16.0	6½ — 6 pm	6½ — 6½ pm	6½ — 7½ pm	7½ — 8 pm
6.13.4	Do. Perpet. 5 per cent. No. 1.	6.13.4	..	..	..	..
6.13.4	Do. do.	6.13.4	..	..	..	..
25	Do. York Extension	10½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	East Lincolnshire	1½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	Edinburgh and Glasgow	50	71 — 73	71 — 73	70 — 72	71 — 73
12½	Do. ½ Shares	10	..	..	..	..
12½	Do. ½ Shares	12½	17 — 19	17 — 19	17 — 19	17 — 19
18	Do. New ½ Shares	10	4½ — 5 pm	4 — 5 pm	4 — 5 pm	4 — 5 pm
	Edinburgh and Perth	3	..	..	..	..
	Ely and Huntingdon	7½	3 dis — par	4 — 2 dis	4 — 2 dis	4 — 2 dis
	Gloucester, Abergystwith, and					
25	Central of Wales	42½	4 — ½ dis	4 — ½ dis	4 — ½ dis	4 — ½ dis
25	Goole, Doncaster, & Sheffield	1½	1 — ½ dis	1 — ½ dis	1 — ½ dis	1 — ½ dis
90	Grand Union (Notting. & Lynn)	2½	..	..	..	..
50	Great Eastern and Western ..	42½	..	..	..	..
50	Great Grimsby, Louth, Horn-					
50	castle, Linc., and Mid. Jun.	30	1½ — 1½ pm	1½ — 1½ pm	1½ — 2½ pm	2½ — 3½ pm
50	Great South. & West. (Ireland)					
100	Do. Extension	100	207½ — 212½	207½ — 212½	210 — 215	210 — 215
40	Great North of England	5	45 — 47 pm	45 — 47 pm	46 — 48 pm	46 — 48 pm
30	Do. New	10	27 — 29 pm	27 — 29 pm	27 — 29 pm	27 — 29 pm
15	Do. New	1½	11 — 13 pm	11 — 13 pm	11 — 13 pm	11 — 13 pm
100	Great Western	85	58 — 60 pm	61 — 63 pm	60 — 63 pm	61 — 63 pm
50	Do. ½ Shares	50	33 — 35 pm	34 — 36 pm	34 — 36 pm	35 — 37 pm
25	Do. ½ Shares	5	10½ — 11½ pm	11 — 12 pm	11½ — 12½ pm	12 — 13 pm
20	Do. Fifths	20	12½ — 13½ pm	13 — 14 pm	13 — 15 pm	13 — 15 pm
50	Guildford, Fareham, & Ports.	5	4 — ½ dis	dis — par	dis — par	dis — par
50	Hull and Selby	50	100 — 102	100 — 102	100 — 102	100 — 102
12½	Do. ½ Shares	12½	7 — 8 pm	7 — 8 pm	7 — 8 pm	7 — 8 pm
25	Do. ½ Shares	7	16 — 18 pm	16 — 18 pm	17 — 18 pm	17 — 19 pm
50	Lancaster and Carlisle	35	13 — 15 pm	13 — 15 pm	14 — 16 pm	14 — 16 pm
20	Do. New	5	3½ — 4½ pm	4 — 5 pm	4 — 5 pm	4½ — 5½ pm
20	Leicester and Birmingham	22½	1 — ½ dis	1 — ½ dis	1 — ½ dis	1 — ½ dis
20	Leicester and Bedford	22½	1 — ½ dis	1 — ½ dis	1 — ½ dis	1 — ½ dis
20	Leicester, Tamw., Cov., Birm.,	42½	1½ — 1 dis	1½ — 1 dis	1½ — 1 dis	1½ — 1 dis
	and Trent Valley Junction ..					
25	Liverpool and Leeds Direct ..	2½	½ — ½ dis	½ — ½ dis	dis — par	..
25	Liverpool, Manchester, and	2½	..	..	..	..
	Newcastle Junction					
Stock	London and Birmingham	100	218 — 220	221 — 223	222 — 224	223 — 225
24	Do. Thirds	24	35 — 36 pm	37 — 38 pm	36½ — 37½ pm	37 — 38 pm
25	Do. Quarters	2	24 — 26 pm	26 — 27 pm	25½ — 26½ pm	25½ — 26½ pm
20	Do. Fifths	2	21 — 23 pm	22 — 23 pm	22 — 23 pm	22 — 23 pm
25	London and Birm. Extension ..	1½	..	..	..	..
Average	London and Blackwall	16.13.4	7½ — 8½ pm	7½ — 8½ pm	7½ — 8½ pm	7½ — 8½ pm
50	Do. New	2½	1 — 1½ pm	1 — 1½ pm	1 — 1½ pm	1 — 1½ pm
50	Do. Extension	3	..	..	..	..
50	London and Brighton	50	62 — 62½	62½ — 62½	62½ — 62½	64 — 64
50	Do. Consolidated Eighth ..	20	..	..	..	..
Average	Do. do.	13.15.9	20½ — 21	21 — 21½	21½ — 22	22 — 22½
9	London and Croydon	9.0.0	9 — 10 pm	9 — 10 pm	9 — 10 pm	9 — 10 pm
Average	Do. Guaranteed 5 per Cent. ..	12.15.4	9 — 10 pm	9 — 10 pm	9 — 10 pm	9 — 10 pm
Average	London and Greenwich	18.17.2	22 — 24	22 — 24	22 — 24	22 — 24
Average	Do. Preference or Privilege ..	41.6.10	75 — 77	75 — 77	75 — 77	77 — 79
40	London and South Western ..	34	14 — 16 pm	14 — 16 pm	14 — 16 pm	16 — 18 pm
50	Do. New Consol. Eighth ..	12½	7 — 9 pm	7 — 9 pm	8 — 8½ pm	9 — 10 pm
40	Do. New	10	5 — 7 pm	5 — 7 pm	6 — 8 pm	7 — 9 pm
50	London and York	2½	1½ — 1½ dis	1½ — 1½ dis	1 — ½ dis	1 — ½ dis
25	Do. ½ Shares	2½	..	..	..	..
50	Long., Warwick, and Kidderm.	2½	1½ — ½ dis	1 — ½ dis	1 — ½ dis	1 — ½ dis
50	London, Salisbury, and Yeovil	2½	..	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis

Share.	Railways.	Paid.	CLOSING PRICES.			
			April 3.	April 11.	April 17.	April 24.
£	£	£				
30	Londonderry and Coleraine ..	7½	3 — 1 dis	5 — 3 dis	5 — 3 dis	5 — 3 dis
50	Londonderry and Enniskillen ..	7½	.. ..	.. ..	.. ..	.. ..
25	Lynn and Ely ..	10	2 dis — par	4 — 2 dis	4 — 2 dis	4 — 3 dis
25	Lynn and Dereham ..	10	3 — 1 dis	4 — 2 dis	4 — 2 dis	4 — 3 dis
100	Manchester and Leeds ..	82	35 — 40 pm	35 — 40 pm	35 — 40 pm	35 — 40 pm
50	Do. ½ Shares ..	38	16 — 20 pm	15 — 18 pm	16 — 19 pm	16 — 19 pm
25	Do. ¼ Shares ..	2	7 — 9 pm	7 — 9 pm	8 — 8 pm	8 — 8 pm
25	Do. Fifths ..	3	8½ — 9½ pm	8½ — 9½ pm	8 — 9 pm	8 — 9 pm
25	Do. Sixteenths ..	6½	2 — 3 pm	2 — 3 pm	2½ — 3½ pm	2½ — 3½ pm
25	Do. Extension ..	42½	1½ — 2½ pm	1½ — 2 pm	1½ — 2 pm	1½ — 2 pm
25	Manchester and Birmingham ..	40	74 — 76 pm	75 — 77 pm	75 — 77 pm	76 — 78 pm
10	Do. ½ Shares, A ..	4	7 — 8 pm	7 — 8 pm	7½ — 8 pm	8 — 9 pm
10	Do. do. B ..	4	6½ — 7½ pm	6½ — 7½ pm	7½ — 8 pm	8 — 9 pm
10	Do. do. C ..	1	5½ — 6½ pm	5½ — 6½ pm	6 — 7 pm	7 — 8 pm
20	Do. Contin. and Welsh Junc.	1½	.. ..	.. ..	.. ..	.. ..
20	Manch., Buxton, and Matlock ..	42½	par ..	½ dis ..	par ..	½ dis ..
20	Manchester and Southampton ..	42½	.. ..	.. ..	.. ..	.. ..
Stock	Midland ..	100	143 — 146 pm	143 — 145 pm	143 — 145 pm	145 — 147 pm
Stock	Do. New ..	18	10½ — 11½ pm	10½ — 11½ pm	11 — 12 pm	12½ — 13½ pm
Stock	Do. Birmingham and Derby ..	100	114 — 117 pm	114 — 116 pm	116 — 118 pm	117 — 119 pm
25	Newcastle & Darlington Junc.	25	17 — 19 pm	17 — 19 pm	18 — 20 pm	19½ — 20½ pm
25	Do. New ..	1	6 — 7 pm	6 — 7 pm	7 — 8 pm	8 — 9 pm
25	Do. New, Brandling ..	25	16 — 18 pm	16 — 18 pm	17 — 19 pm	19 — 20 pm
25	Newcastle and Berwick ..	10	7 — 8 pm	7 — 8 pm	7½ — 8 ex d	8 — 9 ex d
50	Nerby and Enniskillen ..	4½	.. ..	.. ..	.. ..	.. ..
25	Newark, Sheffield, and Boston ..	2½	1½ — 1 dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
25	North British ..	30	34 — 4½ pm	4 — 5 pm	5 — 6 pm	6 — 6 pm
12½	Do. ½ Shares ..	6	1½ — 2½ pm	1½ — 2½ pm	2 — 2½ pm	2½ — 2½ pm
12½	Do. Carlisle Extension ..	12½	.. ..	.. ..	.. ..	.. ..
25	Do. Dalkeith ..	25	.. ..	.. ..	.. ..	.. ..
5	Do. do. ..	5	.. ..	.. ..	.. ..	.. ..
50	Northern and Eastern ..	65	65 — 68 pm	66 — 68 pm	66 — 68 pm	66 — 68 pm
50	Do. Serp. (issued at 5 dis.) ..	40	15 — 18 pm	16 — 19 pm	18 — 21 pm	18 — 21 pm
12½	Do. ½ Shares ..	12½	15½ — 16½ pm	16 — 17 pm	16½ — 17½ pm	16½ — 17½ pm
50	Do. New ..	1	15 — 17 pm	16 — 18 pm	17 — 19 pm	17 — 19 pm
50	North Kent and Direct Dover ..	2½	1½ — 1 dis	1½ — 1½ dis	1½ — 1 dis	1 dis
50	North Staffordshire ..	42½	1½ — 2½ pm	1½ — 2 pm	1½ — 2½ pm	2 — 2½ pm
25	North Wales ..	34	.. ..	.. ..	.. ..	.. ..
25	Norwich and Brandon ..	18	4 — 6 pm	4 — 6 pm	5 — 6 pm	6 — 7 pm
10	Do. New ..	5	2 — 3 pm	2 — 3 pm	3 — 3 pm	3 — 3 pm
20	Northampton, Banbury, and Cheltenham ..	2	1½ — 1 dis	1½ — 1 dis	1½ — 1½ dis	1½ — 1½ dis
50	Oxf., Worcester, and Wolverh.	12½	3½ — 3½ dis	4½ — 4 dis	5 — 4½ dis	4½ — 4 dis
50	Perth and Inverness ..	2½	.. ..	.. ..	.. ..	.. ..
25	Portsmouth Direct ..	2½	2 — 1 dis	2 — 1 dis	1½ — 1½ dis	1½ — 1½ dis
25	Preston and Wyre ..	25	22 — 34 ..	32 — 34 ..	33½ — 34½ ..	34 — 34½ ..
20	Do. ½ Shares ..	2½	.. ..	.. ..	.. ..	.. ..
25	Richmond ..	10	5 — 6 pm	5 — 6 pm	5 — 6 pm	5½ — 6½ pm
25	Rugby and Huntingdon ..	2	.. ..	.. ..	.. ..	.. ..
25	Scottish Central ..	10	3 — 4 pm	3 — 4 pm	3 — 4 pm	3 — 4 pm
25	Do. New ..	2½	.. ..	.. ..	.. ..	.. ..
25	Scottish Midland ..	10	5 — 3 dis	5 — 3 dis	4½ — 3½ dis	4 — 3 dis
25	Shrewsbury, Wolverhampton, and Sth. Staffordshire Junc.	2½	.. ..	.. ..	.. ..	.. ..
25	Shrewsbury and Birmingham ..	2½	½ — ½ dis	½ — ½ dis	½ — ½ dis	½ — ½ dis
20	Shrewsbury and Hereford ..	42½	1½ — 2 dis	1½ — 1 dis	1½ — 1 dis	1½ — 1 dis
20	Shropshire Union ..	35	4 — 2 dis	5 — 3 dis	5 — 3 ex d	5 — 3 ex d
20	South Devon ..	42½	½ dis — par	½ — ½ dis	½ — ½ dis	½ — ½ dis
20	South Midland ..	35	.. ..	.. ..	.. ..	.. ..
Average	South Staffordshire Junction ..	33.2.4	34 — 35 ex d	34½ — 35½ ex d	35½ — 36½ ..	37½ — 38 ..
50	Do. New (issd at £29) No. 1 ..	16	½ dis — ½ pm	½ dis — ½ pm	par — 2 pm	2 — 3 pm
50	Do. New (£23 6s. 8d.) No. 2 ..	10	½ dis — ½ pm	½ dis — ½ pm	par — 1 pm	1½ — 2½ pm
25	Do. New (£30) No. 3 ..	15	1 dis — par	2 dis — par	2 dis — par	par — 1 pm
25	Do. New (issd at £15) No. 4 ..	2½	½ dis — par	½ dis — par	½ dis — par	½ — 1 dis
20	Staines and Richmond ..	1	½ dis — 4 pm	½ — ½ dis	½ dis — par	½ dis — par
20	St. Alban's, Hatfield, & Hertford Junction ..	42½	.. ..	.. ..	.. ..	.. ..
50	South Wales ..	5	3½ — 2½ dis	4 — 3 dis	4 — 3 dis	4 — 3 dis
50	Tean and Dove Valley ..	18	.. ..	.. ..	.. ..	.. ..
20	Trent Valley ..	2½	22½ — 23 pm	22½ — 23 pm	.. ..	.. ..
20	Trent Valley and Holy Junc.	2½	1½ — 2 dis	1½ — 2 dis	1½ — 2 dis	1 — 1½ dis
20	Vale of Neath ..	2	.. ..	.. ..	.. ..	.. ..
20	Warwickshire and London ..	42½	.. ..	.. ..	.. ..	.. ..
20	Waterford and Kilkenny ..	8	3 — 2 dis	4 — 3 dis	5 — 3 dis	4½ — 3½ dis
20	Waterford, Wexford, Wicklow, and Dublin ..	14	.. ..	.. ..	.. ..	.. ..
20	Welsh Midland ..	2½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
20	West Riding Union ..	42½	1 — 1½ pm	1 — 1½ pm	1 — 1½ pm	1½ — 1½ pm
20	Wexford, Waterford, & Valentia ..	1½	1 — 1 dis	1½ — 1 dis	1½ — 1 dis	1½ — 1½ dis
50	Wilt., Somerset, & Southampton ..	5	1 — 1 dis	2½ — 1½ dis	2½ — 1½ dis	3 — 2 dis
20	Worcester and South Wales ..	20	4 — 6 pm	4 — 6 pm	5 — 6 pm	6 — 7 pm
50	Yarmouth and Norwich ..	23	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	Do. New ..	23	.. ..	.. ..	.. ..	.. ..
50	York and Carlisle ..	23	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	York and Lancaster ..	50	25 — 27 ..	25 — 27 ..	26 — 26 ..	26 — 26 ..
25	Do. ½ Shares ..	45	45 — 47 ..	45 — 47 ..	46 — 46 ..	47 — 49 ..
25	Do. Scarborough Branch ..	25	45 — 47 ..	45 — 47 ..	45 — 47 ..	46 — 48 ..
50	Do. Selby ..	30	41 — 43 pm	41 — 43 pm	41 — 43 pm	40 — 42 pm
25	Do. Extension ..	15	15½ — 16½ pm	16 — 17 pm	16½ — 17½ pm	17½ — 18½ pm

FOREIGN RAILWAYS.

Shares.	Railways.	Paid.	CLOSING PRICES.			
			April 3.	April 11.	April 17.	April 24.
£		£				
25	Barbadoes	1	—	—	—	—
20	Boulogne and Amiens	12	par — ½ pm	½ dis — ½ pm	½ dis — ½ pm	½ dis — ½ pm
20	Bordeaux, Toulouse, & Cette, (Midi)	2	dis — par	par	par	par
20	Bordeaux, Toulouse, & Cette, (Nepoleon)	2	dis — ½ pm	par — ½ pm	par — ½ pm	par — ½ pm
20	Calcutta & Diamond Harbour	7½	—	—	—	—
20	Central of Spain	2	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
	Ceylon	5s.	—	—	—	—
	Demerara	2½	dis — ½ pm	½ dis — ½ pm	½ dis — ½ pm	½ dis — ½ pm
20	Dendre Valley	2	1½ — 1½ dis	2 — 1½ dis	2 — 1½ dis	2 — 1½ dis
20	Dutch Rhenish	5	dis — ½ pm	½ pm	1 pm	1½ pm
	East Indian	5s.	—	—	—	—
	Great Indian Peninsula	5s.	—	—	—	—
20	Gr. North. of France (constitd.)	5	10½ — 10½ pm	9½ — 10 pm	9½ — 9½ pm	10½ — 10½ pm
20	Great Paris and Lyons	2	—	—	—	—
	Great Western Bengal	5s.	—	—	—	—
22	Great Western Canada	3½	—	—	—	—
	Italian and Austrian	3	—	—	—	—
20	Jamaica South Midland Junc.	1	dis — ½ pm	½ pm	½ pm	1 pm
15	Jamaica North Midland	1	dis — par	par	dis — par	—
20	Do. Extension	1	dis — par	½ dis — par	½ dis — par	—
	Jersey	1	dis — ½ pm	½ dis — ½ pm	½ dis — ½ pm	½ dis — ½ pm
20	Louvain and Jemeppe	4	3 — 2 dis	2½ — 2½ dis	3 — 2½ dis	3 — 2½ dis
20	Lyons and Avignon	2	par — ½ pm	½ dis — ½ pm	½ dis — ½ pm	½ dis — ½ pm
20	Luxembourg	4	2½ — 2 dis	2½ — 2½ dis	2½ — 2½ dis	2½ — 2½ dis
20	Namur and Liege	4	2½ — 1½ dis	2½ — 2½ dis	2½ — 2½ dis	2½ — 2½ dis
20	Orleans and Vierzon	10	7½ — 8 pm	6½ — 7 pm	6 — 6½ pm	6 — 6½ pm
20	Orleans and Bordeaux	6	5½ — 6 pm	4½ — 4½ pm	4½ — 4½ pm	5 pm
20.16.8	Over-Yssel	4.3.4	3½ — 2½ dis	3½ — 3 dis	3½ — 3 dis	3½ — 2½ dis
20	Paris and Lyons (Laifette)	2	—	—	—	—
20	Do. do. (Gunneron's)	3	—	—	—	—
20	Do. do. (Calon's)	2	—	—	—	—
	Do. do. (Sud Est)	2	—	—	—	—
20	Paris and Orleans	20	50 — 51	48 — 49	46½ — 47½ ex d	48 — 49 ex d
20	Paris and Rouen	20	40 — 41	39½ — 40½	40 — 40½	40½ — 41
20	Paris and Strasbourg (const.)	2	—	—	—	—
	Do. do. (Compagnie L'Est)	2	—	—	—	—
20	Rouen and Havre	20	29 — 30	29 — 29½	29 — 30	29 — 30
20	Sambre and Meuse	8	3 — 2 dis	3½ — 3½ dis	3½ — 3 dis	3½ — 3 dis
14	Strasbourg and Basle	14	9 — 10	9 — 10	9 — 10	9 — 10
20	Tours & Nantes (constituted)	5	1½ — 2½ pm	1½ — 1½ pm	2 pm	1½ — 2 pm
20	West Flanders	4	1½ — ½ dis	2 — 1½ dis	2½ — 1½ dis	2½ — 1½ dis

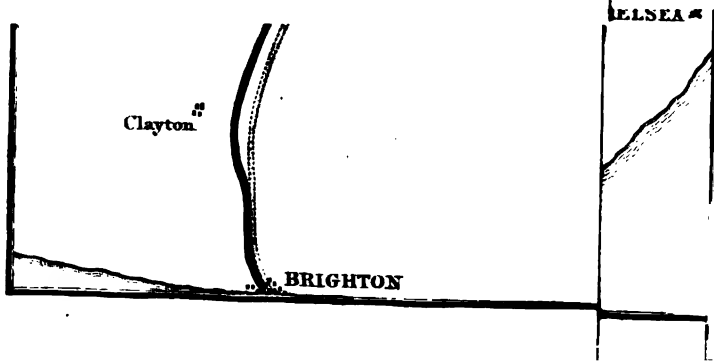
DAILY PRICE OF STOCKS FOR APRIL,

AT THE CLOSE OF THE MARKET.

April.	India Stock.	Bank Stock.	Cons. money.	Cons. Acct.	3 per ct. red.	New 3½	Long Anns.	India Bonds.	Ex. Bills.
1	Shut	Shut	96½	96½	Shut	Shut	Shut	Nothing	26-28 pm.
2	—	—	96½	96½	—	—	—	27-5	26-28
3	—	—	96½	96½	—	—	—	Nothing	29-30
4	—	—	96½	96½	—	—	—	—	29
6	—	905-6½ d	96½	96½	95½ x d	97-6½ x d	103-16½	—	25-26
7	—	207 x d	96½	96½	95½	96½	10 1-8	—	23-26
8	—	906	96½	96½	95½	97	Shut	—	23-27
9	961½	906½	96½	96½	95½	96½	10 3-16	25	23-28
10*	—	—	—	—	—	—	—	—	—
11	Shut	206	96½	96½	95½	96½	10 1-8	—	27-25
13	261	206	96½	96½	95½	96½	Shut	23-8	24-7
14	261	203½	96½	96½	95½	97	—	—	24 pm.
15	Noth.	203½	95½	96½	95	96½	10 1-8	—	27 pm.
16	258	209	95½	96	94½	96½	10 1-8	—	23-21
17	—	205	95½	96½	94½	96½	10 1-10	—	19-25
18	—	206½	95½	96½	94½	96½	10 3-10	—	26-23
20	—	203½	95½	96	94½	96½	10 1-8	29-28	25-24
21	260	204½	95½	96½	94½	96½	10 3-16	—	26-22
22	259½	203½	96	96½	94½	96½	10 3-16	—	24-26
23	—	—	96½	96½	94½	96½	10 1-4	—	24-26
24	—	205	96	96½	94½	96½	10 3-10	—	24-26

* Good Friday.





THE NORTH KENT RAILWAYS.*

(With a Map.)

of railways in North Kent involves one of the most serious questions in railway policy, and presents the most remarkable case in the present session we had two powerful Companies in the established Company, and one a new Company—claiming the construction of a line through North Kent; and while there was a difference on points of engineering merit, there was strong ground of moral claim; and the contest was not carried between two candidate Companies for a valuable concession, but in a contest in which matters of principle are involved. The people of the district took part in this feeling, and their opposition to the established Company, the South Eastern, and their warm support for the new Company, the North Kent, which was held to be as their own undertaking. Here and there, at or near such a station, it might be contended that one plan was better than the other; but the main battle, as we have already said, was a general one. Much has been written on both sides in this contest, and the peculiar ability by the advocates of either; while the railway question has fluctuated in their opinions and the decisions they have reached it was one of those cases which are as much matter of fact as of judgment, and as circumstances incline in favour of either side the judgment apt to waver.

The conduct of the South Eastern, in what was called the Hignett case, laid them open to public odium—the weight of the public opinion against them; but as feeling subsided, the South Eastern revived, and has now gained an advantage. These changes are natural, for as the claims of the parties depend much on their probable performance of the proposed work, and as much on their probable performance of the proposed work, the scale has wavered with the degree of faith which the public of the moment has allowed to each. This has shown the weakness of the railway press, though it has diminished their influence in the question, and it is sufficient to make us hesitate as to any course we can take in the present review. We can scarcely hope to be impartial, where the mere discussion of the question must enlist our sympathies as much as our judgment; and we would willingly put the blame of our remarks to show its South Eastern or North Kent if we had not the opportunity of approaching the subject on both sides, so as to afford to either side materials for guiding their conclusions, and regulating their conclusions, which the advocates during

L.L.S.E.A.

Statement of the South Eastern Counties Railway Company, 1846.
Reply to the Statement put forth by the South Eastern Company.
Edinburgh Wilson. 1846.

the contest, did not feel themselves called upon to supply. To come to a safe decision, the previous history is surely the first and essential groundwork, for on it rests the settlement of priority of claim, of sound and established faith, and of compliance with public requisites, all which points are involved in the discussion. The North Kent advocates, because they have no claim on the score of originality or priority, seem to have avoided the previous history; while the South Eastern advocates, knowing that their claim is not in legitimate descent, have purposely involved it in mystery. We shall, therefore, first take up the simple history of the subject, and if in the subsequent discussion any undue bias should influence us, we shall, at least, have given the materials of refutation.

In seeking for the origin of a railway in North Kent, while general feeling would induce us to regard it as of early date, in compliance with the popular misapprehension as to the novelty of the railway system, more accurate research will enable us to carry it back to twenty years ago, when indeed all the main lines of railway were already projected, and the railway system mapped out as in its chief lines it now exists. The original prospectus of the North Kent line we have seen, but at present we have not access to it, though we hope at an early period to have the means of republishing it.

In 1825, Captain Varlo, of the Royal Marines, projected a railway with the view of accommodation to the population of North Kent, but it was destroyed by the great panic.*

In 1834, a Company was started called the London, Folkestone, Dover, and Continental Railway Company. This was an extension of the London and Greenwich Railway, with Colonel Landmann, engineer of that Company, for its engineer; and Messrs. Clutton and Fearon, solicitors to the South Eastern, for its solicitors. This project fell to the ground still born.†

Of this line Captain J. Watson Pringle, R.E., gave evidence before the Parliamentary Committee in 1836:—"In the year 1834, I had the pleasure to be acquainted with Mr. Fearon and other gentlemen.‡ In

* In a letter in *Herapath's Journal* for March 14, 1845, which, from the connections of that paper, is sure to be from an authentic source, it is stated that,— "Before the South-Eastern Company was formed, there was a Company in existence as far back as 1827, whose object was to form a line of railway from London, via Gravesend, Rochester, Sittingbourne, and Canterbury, to Dover, and that the officials attached thereto were intimately connected with the corporations of London and Rochester." We believe, however, that ours is the right date, and which we have from a source equally competent.

† The writer in *Herapath's Journal* says,—"The course of this line embraced no portion of the North of Kent beyond Gravesend, the main line leaving that direction at or near Greenhithe, and proceeding through Lord Darnley's property to Newhithe, near Maidstone, and thence by way of Ashford to Dover, with a branch from the point of divergence at Greenhithe into Gravesend. Such was the original scheme. This was, after mature deliberation, abandoned, not so much on account of the objections raised against it by the landowners, as by the almost insurmountable difficulties of the country; for, if I recollect rightly, the works between Greenhithe and Newhithe [Hythe], would have engulfed the whole capital of one million and a half, intended to be raised for the completion of the line from Greenwich to Dover.

‡ Mr. Greenough, F.R.S., Mr. Decimus Burton, architect to the South-Eastern Company, &c.

the first instance, they laid before me a plan which had been taken of a line from London to near Gravesend, to Maidstone—from Greenhithe to Hythe, running across the chalk ridge; and I condemned it, and I refused to have anything to do with it while they meant to go on with that line."

Captain Pringle then tried a line up the valley of the Ravensbourne, through a Mr. Ward's property, and Pratt's Bottom, and to Oxted; that section turned out badly and was abandoned; and subsequently Captain Pringle tried the present line of the South Eastern.*

In 1835, Lieut. Walter, of the Royal Marines, and the promoter and secretary of the Greenwich Railway Company, proposed a line through Greenwich Park to Woolwich, Dartford, Gravesend, Rochester, Canterbury and Dover, with branches to Deal, Ramsgate, and Margate. Messrs. Clutton and Fearon were also in this, and defeated the intended plan with the object of diverting the course through the Weald. This caused a split, Mr. Walter's party proceeding for the North Kent line, and Mr. Fearon's for the Weald line. Mr. Walter's line was called the London and Gravesend Railway Company, and Colonel Landmann became the engineer to it.†

At the same time the South Eastern Company was started, being its first appearance. It was styled the South Eastern Railway Company, London to Brighton, and London to Tunbridge Wells and the Weald of Kent.‡

The plan of this South Eastern line was, as we have stated, projected by Captain Pringle, and was an entirely new undertaking, the previous lines having been properly North Kent lines. Messrs. Clutton and Fearon therefore abandoned the North Kent route and adopted that by the Weald. In the minutes of evidence on the bill in 1836, Captain Pringle says, that in consequence of his failures to produce a satisfactory line in North Kent, he suggested going still further west. Always looking out for a Dover line, and looking at the chalk ridge, the next pass to Oxted is at Godstone, which he thought favourable, and at Merstham, which also is favourable. Finding himself there, he suggested that Lewes and Brighton should be combined, as they were very nearly twenty-five miles south in that direction, and had a complete level through the Weald of Kent. Mr. H. R. Palmer, who subsequently became the engineer of the Company, acknowledged that he merely surveyed upon the plan of Captain Pringle.

In this new plan the South Western was adopted as the terminus,

* The *Railway Magazine* (2nd series) 1838, No. xxxiv., p. 429, gives a plan and description of the line, and says it was started in 1838.

† Singularly enough, the railway press was, in 1835, founded by Mr. Walter, in the shape of the *Railway Magazine*, (now *Herapath's Journal*) for the purpose of advocating the interests of the North Kent, Greenwich, and Preston and Wyre schemes.

‡ In the North Kent pamphlet "Reply to the Statement put forth by the Directors of the South-Eastern Railway Company, Effingham Wilson, 1846, it is stated that the first prospectus was dated 30th October, 1835, and extracts are given from it. This prospectus we have now before us, but it is the amended prospectus; the earlier one is that given by us, and dated 14th September, 1835, six weeks earlier.

and the shareholders in that undertaking were induced to give it their support.*

As the original prospectus of the South Eastern is now rare, and as it elucidates the original views of its promoters, we here give it entire :—

SOUTH-EASTERN RAILWAY COMPANY.

London to Brighton, and London to Tunbridge Wells and the Weald of Kent.

CAPITAL, £1,400,000, in Shares of £50 each.

DEPOSIT, £2 per Share.

PROVISIONAL COMMITTEE.

- ¹ Hon. C. Compton Cavendish, M.P.
- ² Herbert B. Curteis, Esq., M.P.
- ³ Howard Elphinstone, Esq., M.P.
- ⁴ J. Minet Fector, Esq., M.P.
Frederick North, Esq., M.P.
Hon. General St. John.
Edward Barnard, Esq.
James Burton, Esq.
Decimus Burton, Esq.
- ⁶ Robert Clutton, Esq.
Captain Cole.
Thomas Cooper, Esq.
- ⁷ H. C. Moreton Dyer, Esq.
Robert Gear, Esq.
Edward Graham, Esq.
- ⁸ Burwood Godlee, Esq.
Edmund Halswell, Esq.
John Langford, Esq.
Horatio Leggatt, Esq.
- ⁹ Captain Pringle, R.E.
John Smith, Esq.
- ¹⁰ David Salomons, Esq.
- ¹¹ John Shewell, Esq.

* The writer in *Herapath's Journal* asserts that it was Mr. Fearon who suggested the union of Brighton and Dover, and to whom, indeed, the merit and parentage of the South Eastern Line is due, no less than much of its subsequent success.

¹ Uncle of Earl of Burlington, and then M.P. for East Sussex.

² Son of E. J. Curteis, formerly M.P. for Sussex; then M.P. for East Sussex, and a Sussex landowner.

³ M.P. for Hastings, and a Sussex landowner.

⁴ A banker at Dover, and M.P. for that Cinque port.

⁶ A relative of Mr. Clutton.

⁷ Son of the police magistrate.

⁸ A resident at Lewes, now deputy-chairman of the Brighton and Lewes Railway Company.

⁹ The projector of the line.

¹⁰ A Kentish landowner; high sheriff and deputy lieutenant, now director of the Richmond Railway, and chairman of the Reading, Guilford, and Reigate.

¹¹ Member of the Stock Exchange.

Henry Shirley, Esq.

Robert Trotter, Esq.

¹² John Twells, Esq.

¹³ Thomas W. Tyndale, Esq.

Henry Wrench, Esq.

John W. Woollgar, Esq.

With power to add to their number.

BANKERS, { The London and Westminster Bank, } London.
 { Messrs. Spooner, Attwoods, and Company, }

ENGINEER,—Henry R. Palmer, Esq., F.R.S.

SOLICITORS,—Messrs. Clutton and Fearon.¹⁴

SECRETARY,—Mr. Yeats.

The object of this undertaking is, by means of a combination of capital and interests, to open a railway communication, not only between London and the important towns above named, but also to extend branches into parts of the counties of Kent and Sussex, where no facilities of steam navigation exist. The Weald of Kent and the eastern parts of Sussex are excluded from all direct communication with London except by land carriage. The promoters of this undertaking consider that an easy and expeditious conveyance to the metropolis by a railway would be desirable; and, having previously obtained the requisite information as regards the mechanical execution of the work and the *profits* which may be reasonably expected to result from it, now submit their plan to the public. A line has been minutely surveyed from Kennington to Brighton,¹⁵ by which the distance between these two points is forty-eight miles. Those persons desirous of proceeding direct to London Bridge will have the option of passing from Croydon by the railway for which an act has already been obtained to that place. The distance by this course from Brighton to London Bridge is fifty-one miles.¹⁶ From Croydon the line proceeds to the eastward of Godstone, near Oxted, thence in almost a direct line to Brighton, with an easy communication to Lewes and Newhaven, to which places it is intended a branch shall hereafter proceed. The Brighton line enters at the northern part of the town, from which point it may without difficulty be continued to Shoreham if considered desirable. From Oxted the Eastern line proceeds direct to Tunbridge Wells, through a country presenting every facility for such a work. The distance from Kennington to Tunbridge Wells will be thirty-two miles. It is proposed hereafter to carry a line from the Kentish branch at Bowbeach by Tunbridge through the Weald to Dover.¹⁷ The line being direct from London to Brighton, the journey will be performed in about two hours, that to Tunbridge Wells in an hour and a half. The survey is completed, and

¹² Partner in Spooner and Attwood's; afterwards deputy chairman.

¹³ Afterwards chairman, and predecessor to Mr. Baxendale.

¹⁴ J. P. Fearon, Esq., the present solicitor.

¹⁵ It will be seen that this was rather a Brighton than a Dover line.

¹⁶ The object of having a West-end terminus to London, so frequently matter of controversy with the Croydon, is here part of the original plan, and the London Bridge route was optional.

¹⁷ The Dover line was only an adventitious object of the plan.

the promoters of the undertaking are fully satisfied that it *shows the best and shortest practicable line to Brighton*—and one which will not exceed the average cost of similar undertakings—whilst the income, estimated from the returns obtained from actual observation, greatly exceeds that which can be derived from any other line to Brighton, in consequence of its embracing also the traffic of Tunbridge Wells and the Weald. The general character of the line from Kennington to Brighton may be shortly stated. Where not level, it consists of gradients not exceeding sixteen feet in a mile, excepting at the Chalk Range between Croydon and Oxted, where, for a short distance, the inclination is one in a hundred. This can be traversed without diminution of speed by means of an assistant locomotive engine, and is the only portion where such assistance will be required. The line as far as Oxted being common to both, the latter remark applies also to the line to Tunbridge Wells; but from Oxted the gradients are considerably less than sixteen feet in a mile. In those districts through which a railway passes, the poor and county rates are materially lightened, by the expenditure of a large capital in the employment of labour in its construction and maintenance, and by its permanent contribution to the rates of the parishes intersected by it. It may not be generally known that the Liverpool and Manchester Railway Company, throughout their line, pay on an average nearly one-third of the parish rates. Moreover, the landed proprietors will be benefited by an improved conveyance for agricultural produce. Hops, fruit, and butcher's meat will find an expeditious transit to the London and other markets. Lime, coals, and manure would be brought in return. From these causes the value of landed property near a line of railway has invariably been enhanced. There are on the line of the proposed railway, and within its immediate neighbourhood, eighty-one coaches licensed for the conveyance of passengers. These coaches perform 32,050 journeys in a year, and are capable of carrying 433,800 persons. The average number of passengers travelling on the line of the Great Western Railway was admitted by the opponents of that measure before the Committee of the House of Lords to be ten per journey. The average in the present estimate is taken at nine. The details of traffic have been taken with great care, and a proportion varying with the peculiarities of the districts has been adopted as the basis of the calculations. It has, however, been customary, in undertakings of this description to assume that an increase of traffic must inevitably follow the construction of a railway, and this principle has been recognized by committees of both Houses of Parliament in their revision of the estimates of income, but in the present instance no addition has been made for any such assumed increase of traffic. The whole expense of the contemplated railway, including the most liberal allowance for contingencies, will not exceed £1,320,000.

The following are the sources and amount of income to be realised from the present traffic:—

Stage coach passengers travelling by 81 coaches -	£96,316	8	8
Parcels by coaches -	11,953	18	0
Posting, including the conveyance of private carriages			
and passengers therein -	26,520	0	0
Goods by land carriage, conveyed at present by 84			
common carriers -	15,974	0	0

Goods by private conveyance not common carriers, comprising coals, corn, hay, straw, hops, wool, paper, rags, wood, chalk, lime, timber, manure, poultry, meat, fruit, vegetables, and fish				-	-	13,172	0	6
Goods conveyed at present by water carriage				-	-	3,106	17	6
Sheep and cattle				-	-	2,406	5	0
						£169,449	9	8
Deduct annual expenses of locomotive power, repairs, taxes, rates, salaries, and management, taken at 50 per cent. on the gross income, which is an ample allowance				-	-	84,724	14	10
Net annual income				-	-	£84,724	14	10

This income amounts to more than six per cent. on the capital, and it is particularly to be observed that it is founded on the traffic as it now actually exists, and on calculations which will bear the strictest scrutiny.

It having been determined to proceed without delay, the necessary notices for an application to Parliament will forthwith be given. Applications for shares may be made to the Bankers, or to Messrs. Clutton and Fearon, 48, High Street, Southwark, and Crown Office Row, Temple, London.

J. S. YEATS, Secretary.

September 14th, 1835.

On the 30th November, 1835, the plan was re-modelled, and the Dover portion was made more conspicuous, but on the plan there is not the least reference to the accommodation of North Kent. The line is represented as having been surveyed under the direction of Henry R. Palmer, C.E., F.R.S., by Peter W. Barlow, now the resident engineer to the Company, and who took part in the prosecution of the works.

The capital was under £2,100,000, and the direction in November was reinforced by W. Knox Child, Esq., while Capt. Pringle and Henry Wrench, Esq., had retired. A long list of local bankers is given, and the offices were established at 98, Gracechurch Street.

The most remarkable portions of the amended prospectus are as follows:—

“The great importance attached by the subscribers to the immediate opening of a communication by Dover with the Continent, has determined the promoters of this undertaking on proceeding, in the next session of parliament, to complete their whole design to Brighton and to Dover, adopting the Greenwich and Croydon Railways for passengers to and from the City, and the Southampton Railway for the West End traffic, to one common point at Croydon.

“The plan, therefore, not only offers the shortest and most direct line to Brighton, but for the first twenty miles out of London it answers the purpose of a joint communication with Brighton, Tunbridge, the Weald of Kent, and Dover.

“From Tunbridge the line is direct through the Weald to Ashford, and thence to Dover.

"The spirit of improvement in the means of communication, which originated in England, has now extended itself to the Continent, and lines of railway have been surveyed, and are in contemplation, to connect the Northern Coasts of France and Belgium with Paris and the interior. The importance, therefore, of Dover, as the great commercial and political outlet to the Continent, is much increased."

"The dépôts at Tunbridge and Tunbridge Wells will secure the traffic of East Sussex, including the important watering places of Hastings and St. Leonards; whilst the Weald line, besides the towns mentioned near which it passes, must also bring that of the numerous other towns and villages in the hop districts."

"The following are the sources and amount of income to be realized at railway prices from the present traffic:—

	£	s	d
Stage-coach passengers now travelling by one hundred and four coaches - - -	139,972	2	8
Parcels by stage coaches - - -	20,589	18	0
Posting, including the conveyance of private carriages and passengers therein - -	49,171	4	0
Goods by land carriage, conveyed at present by ninety common carriers - - -	18,783	14	0
Goods by private conveyance not common carriers, comprising coals, corn, hay, straw, hops, wool, paper, rags, wood, chalk, lime, timber, manure, poultry, meat, fruit, vegetables, and fish - - -	21,213	16	6
Goods conveyed at present by water carriage, $\frac{1}{10}$ of quantity now conveyed - - -	8,278	17	6
Sheep and cattle - - -	3,305	0	0
Proportion of passengers now travelling to Dover, direct by steam boats, $\frac{1}{10}$ of present number - - -	1,352	0	0
	<hr/>		
	£262,666	12	8
Deduct annual expenses of locomotive power, repairs, taxes, rates, salaries and management, taken at 50 per cent. on the gross income, which is an ample allowance -	131,333	6	4
	<hr/>		
Net annual income	£131,333	6	4

The South Eastern scheme proved a complete failure; and the projectors having such powerful opposition to contend with, abandoned the Brighton portion, and limited themselves to the Dover portion.

The South Eastern in this matter were charged with a breach of faith, and their conduct to the Brighton Companies was severely impeached. The capital was now reduced from £2,100,000 to the original amount of £1,400,000, and applications made for a bill to Dover.

The year 1836 was the period of a severe contest in parliament among the various lines for the South Eastern districts. Mr. Walter's London and Gravesend Company proceeded with their bill; Mr. Fearon's South

Eastern Company with theirs ; and several Brighton Companies were also in the field.

The Brighton bills were thrown out, the London and Gravesend was lost on the second reading, and the South Eastern went through its battle in committee ; and, at last, on the 21st of June, 1836, the bill received the Royal assent. The passing of this line was the subject of much ridicule, as the idea of traffic to support it coming from the Weald of Kent, was mostly regarded as absurd. This bill did not pass without every effort being made in favour of North Kent, and meetings were held at Chatham, Rochester, Stroud, and other towns, in support of the North Kent, and against any other line. So strongly did the parliamentary committee feel that the weight of traffic evidence and of public utility was in favour of North Kent, that it expressly distinguished the line through North Kent as entitled to consideration, provided it could be shown that such a line might be accomplished without insuperable engineering difficulty.

In 1837 the London and Gravesend Company was remodelled, and the promoters came forward with a complete North Kent line, but they were again defeated.

At the same time, the South Eastern, having got their Dover line, now attempted, as was asserted, in breach of the compact, to get the Brighton line, for which they had first hankered, and accordingly applied, in the session of 1837, for a Brighton bill, but in which they failed. It resulted, however, in an arrangement between them and Rennie's Company, by which the South Eastern line was diverted further south from Oxted to Reigate, and the line between Croydon and Reigate divided between the two Companies. During this time, the progress of the works in Kent was suspended.

An invidious and unusual enquiry, promoted by the South Eastern managers into the private characters and circumstances of the parties who had signed the North Kent deed, had aggravated the position of that concern, which the panic effectually broke. Subsequently Mr. Walter's party being turned out of the Greenwich Railway, continued to urge the expediency of a North Kent Extension, while the Greenwich directors abandoned it. As the market presented appearances of improvement, so was the plan of a North Kent line agitated by Mr. Walter, from time to time, and it became a bugbear to the South Eastern, who were involved in financial difficulties, and did not succeed in opening their line to Dover until 1844. Whenever the subject of a North Kent line was agitated at South Eastern meetings, it was always scouted by the directors as completely visionary ; and Mr. Baxendale, the chairman, on more than one occasion, undertook to demonstrate that it would never be executed, and could never pay.

In 1840 Mr. Walter issued a prospectus, with the view of concentrating the old Kent interest, but this plan fell to the ground. Mr. Vignoles was the engineer of this Company. This prospectus is headed :—

“ The North Kent Railway, from London to Ramsgate, passing through or near the towns of Deptford, Greenwich, Woolwich, Dartford, Gravesend, Stroud, Rochester, Chatham, Brompton, Milton, Sittingbourne, Faversham, Canterbury, and Margate, with a branch from Rochester to Maidstone.

"The capital required to finish the railway to Rochester Bridge will be £1,000,000, to be raised by the creation of stock, bearing interest from the day of investment, at £3 per cent. per annum, payable half-yearly, until the railway to Rochester shall have been completed and opened to the public twelve months, after which the dividends will be paid out of the net profits of the undertaking."

The mode of raising the capital was also novel, as it proposed the creation of stock:—

"The capital required to execute the work to Rochester is one million; and the plan of raising the capital by the creation of stock instead of shares, and paying interest during the execution of the works, has been adopted in order to avoid the fatal consequences and impediments to all new undertakings, from the ruinous system lately resorted to by various Companies, in raising additional capital by the issuing of new shares (in many cases at 50 per cent. discount), thereby creating an enormous nominal capital, on which dividends must be paid, to the manifest injury and injustice of a large proportion of the original subscribers, whose means having been exhausted in fulfilling their original contract, cannot avail themselves of the proffered bonus held out to them of taking the new shares at a discount, and they are thereby compelled to leave all such advantages to their more fortunate brother shareholders."

It was stated that the plans were deposited in the Private Bill Office, and were, we believe, the old Kent plans.

In 1844 Mr. Walter moved again, and brought into activity a Company, which was subsequently sold to the South Eastern Company. At this time the feeling in North Kent was strong in favour of railway communication, and Mr. Vignoles, the engineer, who had surveyed the line four years before, directed his attention to the subject. His plan was taken up by several of the leading land-owners and capitalists, and immediately assumed a permanent form. The financial odium which attached to the old Kent line, prevented its promoters from obtaining public support, while the South Eastern Company, as declared enemies to the district, could hope for no sympathy in any attempt at a Northern line. Vignoles' Company became a rallying point for the popular feeling, and it was as at once adopted as the representative and exponent of the local interests.

The first prospectus was issued on the 18th July, 1844, and is as follows:—

PROSPECTUS OF THE LONDON, CHATHAM, AND NORTH KENT RAILWAY.

CAPITAL, £1,500,000, in 30,000 Shares of £50 each.

DEPOSIT, £3 per Share.

PROVISIONAL COMMITTEE.

Sir Brook W. Bridges, Bart., Goodnestone, Kent.

Joseph Bailey, Jun. Esq., M. P., Belgrave Square.

J. C. Colquhoun, Esq., M. P., Putney Heath.

Lieut.-Gen. Sir Howard Douglas, Bart., G.C.B., G.C.M.G., M.P., Green Street.

Frederick Mildred, Esq., Nicholas Lane.
 William C. Mylne, Esq., New River Head.
 J. D. Powles, Esq., New Bank Buildings.
 H. T. Prinsep, Esq., Hyde Park Gardens.
 Joshua Walker, Esq., Abchurch Lane.
 George Whitmore, Esq., Austin Friars.

(With power to add to their number.)

ENGINEER—Charles Vignoles, Esq., F.R.A.S., M.R.I.A.

COUNSELL—Francis Henry Goldsmid, Esq., Stone Buildings, Lincoln's Inn.

SOLICITOR—William Stephens, Esq., 30, Bedford Row.

BANKERS—Messrs. Masterman, Peters, Mildred, Masterman and Co., London; Messrs. Boyle, Low, Pim, and Co., Dublin; The Liverpool Banking Company, Liverpool; Sir Benjamin Heywood, Bart., and Company, Manchester.

This railway is proposed as a direct and uninterrupted line of communication, from London Bridge to Woolwich, Gravesend, Chatham, Ramsgate and Margate, passing through the populous part of North Kent—a rich district, intimately connected with the metropolis, but at present altogether unprovided with railway accommodation.

Several incomplete plans for railways in this direction, have of late been brought before the public. The present line, as far as Chatham, was surveyed four years ago; but it has been considered, that in the present advanced state of the railway system, a complete communication through one of the most populous districts of the country, is best calculated to meet the wants and wishes of the public, and of the government—bringing not only all the favourite watering places of North Kent within a close proximity to London, but embracing in its course some of the most important military and naval arsenals of the empire.

The railway is intended to commence at London Bridge, and pass by the London and Greenwich line to Deptford; then to proceed outside of Greenwich Park, by Blackheath, Charlton, Woolwich, Plumstead, Wickham, Bexley-Heath, Crayford, Dartford, Stone, and Northfleet to Gravesend; from thence (North of Cobham Park,) to Frindsbury and Stroud, and crossing the Medway by a permanent bridge, through Rochester, Chatham, and Brompton; then by Rainham, Sittingbourne, and Milton (within a very short distance of Sheerness), to Ospringe and Faversham, continuing to near Whitstable (intersecting the railway already made from that port to Canterbury,) and along the North Coast of Kent by Herne Bay and Reculver to the Isle of Thanet, and either falling into the South Eastern branch from Ashford to Margate, Broadstairs and Ramsgate, or continuing the proposed railway to those places, thus coming within a short distance of Sandwich, and only ten miles from Deal.

"The length of railway to be made will be about 60 miles in the first case, or little more than 70 miles in the latter alternative.

"The mode of passing by Greenwich Park and Woolwich Common, will be the same as was required by the government authorities, for the projected London and Chatham Railway, the plans and sections whereof

were prepared by Mr. Vignoles, and lodged for Parliament in the session of 1840.

It is designed as part of this plan, to connect the station at the London terminus, with a steam boat wharf, by a direct and uninterrupted passage between the railway and the river; which passage may be conveniently obtained. The daily increasing communication between the extreme parts of London, by means of the numerous small steam boats, has become as necessary for the convenience of the visitors and inhabitants of the metropolis, as the public conveyances along the principal streets. All these boats will facilitate the access of passengers to the railway.

The project will of course be subject to any modification which may be considered advisable by the committee, or be required by the government.

The estimates in the engineering department have been carefully prepared; and from the experience now gained in constructing and furnishing railways, as well as the very favourable character of the country through which it has chiefly to pass, the engineer states that the proposed line may be completed for working, at a cost averaging under £25,000 per mile, including land-purchases, parliamentary expenses, and management. These latter items, though not so susceptible of rigorous calculation as the works, have had liberal amounts assigned to them, and a large allowance has been added for contingencies. The committee have every confidence in the estimates prepared by their engineer, and do not apprehend that the proposed capital of £1,500,000 will be exceeded.

The resident population on the line, or within a very short distance, (*exclusive* of London and Greenwich), is considerably above 300,000. If the traffic be estimated by the extent of steam-boat movement only, throughout the year, it appears that in 1843, this boat traffic, to and from Woolwich, was ascertained to have been more than two millions of passengers annually, being upwards of 6000 daily; although in 1840, the whole passenger traffic to and from that town, by land and by water, averaged only 3838 daily. In 1840, the daily movement of passengers between London and Gravesend, by the steam boats, was 1900. In 1843 it was nearly double that amount, viz., one million and a quarter in the course of that year; and it appears to be still on the increase, it having been stated semi-officially, that the number of passengers in the month of June of this year, landed and embarked at the Gravesend Piers from the London steam boats, was 331,739. A corresponding augmentation has taken place in the numbers travelling to and from Rochester, Chatham, Maidstone, &c. The steam boat traffic to Herne Bay, Margate and Ramsgate, is also of great extent, and by moderate computation not less than 150,000 persons pass annually to and from those places. All this is independent of the ordinary transit along the road, from the numerous populous places throughout the north part of Kent, which is at least equal to any other district, of similar extent, within the same distance from the metropolis.

It is not necessary here to go into any very close computation of the extent to which a railway communication may compete with that by steam boats. It is sufficient for the purposes of the estimates connected with this undertaking, to assume that the railway will obtain

about one half of the existing traffic by steam boats, with the whole of that by the present modes of land conveyance—not to mention the undoubted increase of intercourse, which in all cases has been found to result from the establishment of a railway communication, and of which this line is largely susceptible. For the longer distances projected by line, and especially, during those times of the year, and of the day, which are unfavourable to water communication, the increased speed, facility, and safety given by railway travelling must operate largely in favour of the latter. With a population of two millions in the metropolis, having access to Gravesend in little more than half an hour; to Chatham in about an hour; to Herne Bay in less than two hours; and to Margate and Ramsgate in two hours and a half, at moderate fares, with constant opportunities, to and fro, at every hour in the day, late and early, such an increase of the existing traffic may reasonably be expected as will give ample occupation to both means of conveyance. It is impossible to contemplate any section of country connected with the metropolis affording greater scope for an extended and continually increasing traffic, to an amount not easily estimated.

Independently of the great existing passenger traffic, there is an almost incessant transport to London, of fish, fruit, vegetables, hops, and other produce, parcels, van-goods, and merchandise, besides the returns from the metropolis, for local consumption. This railway will also enjoy the peculiar advantage of a *direct communication* between the railway terminus at London Bridge and both shores of the river, all the way up to Westminster, Nine Elms, Chelsea, and still further.

The connection of the important military and naval stations of Woolwich and Chatham, direct with London and the Thames, and also by the South Western Railway from Nine Elms, with Portsmouth and Southampton, is not only an object of great national importance, but must command a certain continuous trade. But no returns have been calculated upon, in the estimates of traffic, from this undoubted source of revenue.

The line has the peculiar advantage of thus supplying railway accommodation to the populous districts of North Kent, without interfering with any of the traffic naturally belonging to the South Eastern (Dover) Railway, which traverses the more southern parts of the county. Nor are the advantages of the London, Chatham, and North Kent line confined to travellers in England. The passengers by the Ostend packets will naturally come to Ramsgate; for by this direct line of railway, and the shortening of the sea voyage, Ostend and London will be only six or seven hours apart, thus saving three hours at least; hence may be expected a great increase of travelling to the Continent, on this new route, especially as passengers may be landed at Ramsgate Pier at all times of the tide. This important item, however, has not been brought into the present estimated returns.

Under these favourable circumstances, the annexed is put forward with confidence as a low estimate of the probable traffic; and there is subjoined a table of statistics of several existing railways, with estimates under corresponding heads for the proposed London, Chatham, and North Kent Railway, by way of comparison and illustration of population, passenger-movement, revenue, and profit; so as to show that

these estimates are founded on the results of practical experience in other cases.

To those accustomed to consider the traffic returns on railways, the estimated gross receipts, averaging only £4,652 per week, on this line, extending upwards of seventy miles through so active a population as that of North Kent, must appear extremely moderate; and on this low estimate, after deducting 50 per cent. for working expenses and for toll to the lines connected with this railway, the result shews a clear profit of full 8 per cent. on the proposed capital of £1,500,000.

A deposit of £3 will be payable on the allotment of the shares, and at the same time, the subscribers agreement and parliamentary contract must be signed.

The prospectus and forms of application for shares, may be obtained at the office of the solicitor, 30, Bedford Row; of Messrs. Boyle, Low, Pim, and Co., Dublin; of Messrs. Joseph King and Son, Liverpool; of Messrs. Railton, Manchester; and at No. 13, Austin Friars, London, to which latter place applications for shares must be addressed in the form annexed.

London, 18th July, 1844.

ESTIMATED TRAFFIC.

The *present traffic to and from Woolwich* by steam boats, and carriage by land, is estimated at nearly 2½ millions annually. As there will be no change of conveyance, and the time occupied in going to Woolwich will be little more than a quarter of an hour by railway, from London Bridge, it may be assumed that the future increase of persons conveyed, will be so considerable, as to give to the railway at least half the present number, say 1½ million passengers yearly, which at an average fare, (from 1st, 2nd, and 3rd class passengers,) of 9½d. each, will produce - - - £49,479

The *present intermediate traffic* to and from London, and places beyond Woolwich, and short of Gravesend, and all adjacent districts, as deduced from observations taken at Blackheath, Shooter's Hill, Erith and Dartford, has been estimated at 150,000 persons annually, which being supposed to be increased only one-half from facilities by railway, will make 225,000, and this number, at an average fare (from 1st, 2nd, and 3rd class passengers,) of 14d. each will produce 13,125

The *present traffic to and from Gravesend*, by steam boats and land conveyances, is 1,300,000; of which, full one-half may be calculated upon—say, 650,000, which, at an average fare, (from 1st, 2nd and 3rd class passengers,) 18d. each, will give a gross income of - - - 51,250

The *actual traffic between Gravesend and Chatham* by land, as taken in 1840, was ascertained to be half a million of passengers annually, most of whom proceeded to London by steam boats from Gravesend. This number it is known, has since much increased, and by the railway it may be expected to be at least increased one-half, making 750,000 persons a year, including those who will proceed to the further parts of the line below Chatham. This number at

an average fare, (from 1st, 2nd, and 3rd class passengers,) of 9½d. each, will produce - - - - - 29,687

The *present traffic of passengers by land and water* to and from all places *beyond Chatham*, from the best information that can be obtained, is equivalent to 200,000 annually, which by frequent and quick trains and moderate fares to all the watering places and populous towns on the line, may be assumed to be equal to that amount, say 200,000, by the railway, assigning all increase in passengers, beyond the existing traffic, to the steam boats. This number, at an average fare, (from 1st, 2nd, and 3rd class passengers,) of 5s. each, will produce an income of - - - - - 50,000

Giving a gross receipt from passengers only of - - - £193,541

The additional income from all other sources, viz., private carriages, horses, dogs, parcels, mails, fish, fruit, vegetables, groceries, and general merchandise;—(taking as a basis of calculation, *the same ratio as on the Brighton and on the Dover Railways*, in 1843, and considering the very populous districts from London through North Kent,) cannot be calculated at less than 25 per cent. on the gross receipts from passengers only, which would be - - - 48,385

Making a total gross revenue of - - - £241,926

Deduct for working expenses, and for toll to the Greenwich Railway, and to the branch line to Ramsgate, (or to pay interest on the cost of its construction, if executed by the parties promoting this line through North Kent,) at the rate of 50 per cent., viz. - - - - - 120,963

There will remain a nett income of - - - £120,963

Which is equivalent to 8 per cent. on the proposed capital of £1,500,000.

[To this is appended a statistical comparison of the traffic on various lines.]

A little later, Sir Isaac L. Goldsmid became the chairman, and the direction was joined by the Marquis of Conyngham, Mr. Angerstein, Mr. Peters, the banker, and others.

A great change had now come over the South Eastern Company, Mr. Baxendale's power tottered, and the old management was involved. The Liverpool interest was, however, propitiated by the election of Mr. Macgregor into the board, and by the retirement of Mr. Baxendale from the chairmanship of the Company, in which his stake of £100,000 had given him paramount influence. Sir John Kirkland, the new chairman, at a little later period, gave way to the real ruler of the Company; and in 1845, Mr. Macgregor assumed the chairmanship; which he now holds, and at once proceeded to carry out an entirely new line of policy on a bold and comprehensive scale, exhibiting a degree of talent which has much enhanced his reputation. The necessity of securing the rich traffic of North Kent was now paramount, and Mr. Macgregor speedily managed to get possession of Mr. Walter's Company, and break it up; but while the line was thus ceded to the

South Eastern for a consideration, the preliminary expenses disbursed by Mr. Walter were never repaid, although a compact had been made. Vignoles' Company were proof against threatening or persuasion, and held out, but the Greenwich Railway came into the hands of the South Eastern Company in 1844, by a lease, for which the act passed in 1845. This gave the South Eastern a *locus standi* in North Kent, which they so much wanted, and they immediately declared a great regard for government and public accommodation, reduced their fares, increased the number of their trains, and improved their third-class accommodation. The Canterbury and Whitstable Railway and the Gravesend and Rochester Railway and Canal were also made appendages to the South Eastern. By an able arrangement, Capt. O'Brien, relative of one of the three dictators of the Board of Trade, joined the management and railway. The Board of Trade being then paramount, their report in favour of the South Eastern (North Kent line) was secured. Much scandal, however, resulted from some share transactions involved in these proceedings, and one of the first blows was thus struck at the power of the Board of Trade; but the honour of the Captains O'Brien was successfully vindicated in Parliament, though the possibility of undue influence was so strongly shown, as to shake confidence in the infallibility of Mr. Laing and his colleagues.

The session of 1845 opened with the appearance before Parliament of the South Eastern (North Kent) line, with the Board of Trade report in its favour, and of Vignoles' North Kent reported against. The South Eastern failed, however, on standing orders, and the North Kent went into committee, but, after a long contest, were thrown out, two of the committee having rather unaccountably disappeared from the contest, while the whole wound up by the Hignett inquiry. Here one of the curious passages in railway theatricals occurred, the majority which had been favourable to the North Kent having disappeared, and a majority obtained for the South Eastern. The result was, that the North Kent was reported against, and the campaign closed with a drawn battle, though the South Eastern had in the latter part of the campaign recovered the ground they had lost in the beginning.

The end of 1845 was spent by both Companies in new preparations, and each extended its plans, the South Eastern embracing lines through every part of Kent, competing with and destroying its original line. The North Kent produced a new prospectus, which showed a great accession of local strength, and gave the strongest guarantees of the financial ability of its promoters.

NORTH KENT RAILWAY.

(LONDON TO DOVER DIRECT.)

Registered Provisionally.

Capital, £3,300,000, in 66,000 Shares of £50 each.

Deposit £2 10s. per Share.

PROVISIONAL COMMITTEE.

The Most Noble the Marquis of Conyngham.
 Edward R. Rice, Esq., M.P., Dane Court, Sandwich.
 The Hon. William Ashley, Stable-yard, St. James's.
 Sir Brooke William Bridges, Bart., Goodnestone Park.
 Captain Thomas Baker, Boley-hill, Rochester.
 Edmund Buck, Esq., Mayor of Rochester.
 William Clarke, Esq., Mayor of Dover.
 Robert Clements, Esq., Rochester.
 Major-General Sir Francis Cockburn, Dover.
 Thomas Dixon Dyke, Esq., Glovers, near Sittingbourne.
 T. H. Day, Esq., Rochester.
 Francis Bradley Dyne, Esq., Gore Court, Sittingbourne.
 Sir Isaac Lyon Goldsmid, Bart., St. John's Lodge, Regent's Park.
 Colonel Groves, Boughton.
 William Gladdish, Esq., Cliff Cottage, Gravesend.
 General Gosselin, Mount Ospringe, near Faversham.
 Sir John Hamilton, Dover.
 William Lake, Esq., Wood Street, Sittingbourne.
 James Lake, Esq., Newlands, Faversham.
 Stephen George Lushington, Esq., Norton Court, Kent.
 Henahaw Latham, Esq., Dover.
 The Hon. Charles John Murray, Rutland Gate, Hyde Park.
 Capt. G. W. St John Mildmay, Chesham Place, Belgrave Square.
 Michael M'Chlery, Esq., Finsbury Circus, London.
 Edward Manclark, Esq., Rochester.
 William Manclark, Esq., Stroud.
 Charles M'Garel, Esq., Wimpole Street, London.
 Frederick Mildred, Esq., Nicholas Lane, London.
 Charles Milner, Esq., Preston Hall, near Maidstone.
 Ebenezer Fuller Maitland, Esq., Kingsgate, Kent.
 John Nightingale, Esq., Rochester.
 William Peters, Esq., Beckenham, Kent.
 John Rigden Neame, Esq., Rushetts, near Maidstone.
 John Diston Powles, Esq., New Bank Buildings.
 Henry T. Prinsep, Esq., Hyde Park Gardens.
 James Smith, Esq., Rochester.
 Sir John Maxwell Tylden, Milstead Place, Sittingbourne.
 John Tilden, Esq., Ifield Court, Northfleet.
 Joshua Walker, Esq., Abchurch Lane, London.
 George Whitmore, Esq., Austin Friars, London.
 With power to add to their number.

COMMITTEE OF MANAGEMENT.

Sir Isaac Lyon Goldsmid, Bart., Chairman.
 George Whitmore, Esq., Deputy Chairman.
 The Marquis of Conyngham.
 The Hon. William Ashley.
 Sir Brooke W. Bridges, Bart.
 The Hon. Charles John Murray.
 Captain Mildmay.

Michael M'Chlery, Esq.
 Charles M'Garel, Esq.
 Frederick Mildred, Esq.
 William Peters, Esq.
 John D. Powles, Esq.
 Henry T. Prinsep, Esq.
 Joshua Walker, Esq.

ENGINEER—Charles Vignoles, Esq., 4, Trafalgar Square.
 STANDING COUNSEL—F. H. Goldamid, Esq., Stone Buildings, Lincoln's Inn.

SOLICITOR—William Stephens, Esq., 30, Bedford Row.

BANKERS—Messrs. Masterman, Peters, Mildred, Masterman, and Co.

In renewing the application to Parliament for a North Kent line, it has been determined to bring forward the entire of the scheme originally contemplated. The undertaking now proposed is for the formation of a direct line of railway from London to Dover, commencing near the Waterloo and Hungerford Bridges, and proceeding by Blackheath, Woolwich, Gravesend, Rochester, Chatham, Sittingbourne, and Canterbury, terminating at Dover, and by a branch also at Deal, with other branches to Maidstone, Sheerness, Faversham Quays, and Chilham, and also uniting, by its communications at Canterbury, with the line already authorised to Ramsgate and Margate.

Dover will thus be brought within the shortest practical railway distance from the metropolis, and all the above-named intermediate towns and districts will obtain those railway facilities of communication with the metropolis and with each other which they are at present so much in want of; and valuable and most important connections will also be completed between the great arsenals and depots of the country.

The importance of this line to the principal places, having, at present, some circuitous and incomplete railway communication, will be manifest, by the following table of comparative distances from the metropolis at Hungerford Bridge, viz. :—

	By the existing Routes.	By the proposed North Kent Line.
	MILES.	MILES.
Dover - - -	90	72
Deal - - -	103	72
Ramsgate - - -	99	73
Margate - - -	103	77
Canterbury - - -	83	57
Maidstone - - -	58	41

The recent Parliamentary investigation into the schemes for this district has tended to establish that the North Kent traffic is such as to ensure more than the usual rate of profit to the Company who may be fortunate enough to succeed in obtaining power to undertake the line through that, as yet, unoccupied district; and that among the projects submitted to Parliament, the line of the London, Chatham, and North Kent Company was the best, as it was the first in the field. It was also manifest that the reasons assigned by the Railway Board preferring the scheme of the South Eastern Company not only were without

weight with the Parliamentary Committee, but were in all important respects entirely unsustained in proof.

The Provisional Committee of Management have obtained a valuable advantage in their present scheme by securing the co-operation of Mr. Locke, acting in consultation with Mr. Vignoles, their engineer, in fixing the capital of the Company, and settling the line and the engineering features. The project, of which the outline is now put forth, will, of course, be subject to such modifications as may hereafter be deemed desirable.

NOTE.—The appropriation of shares has been completed.

112, Bishopsgate Street, London,
12th Sept., 1845.

As a preparation for 1846, the South Eastern directors brought out an able exposition of their plans and views, accompanied with a map illustrative of the extensive accommodation afforded. We may say this, that although the present session has produced some admirable documents on railway subjects, few surpassed this powerful composition.

The North Kent Company delayed their reply until the opening of the session of Parliament, by which, although they gave some advantage to the South Eastern, they struck the last blow, for they were not answered—though a partisan war of pamphleteering prevailed at Faversham and elsewhere; but the local feeling was strongly pronounced in favour of the North Kent at every great public meeting.

The two Companies having agreed not to oppose on standing orders, then entered committee, and the parliamentary contest commenced, the result of which has so lately been announced.

It will naturally be asked, not what claim had the North Kent to offer in their support, but what claim could the South Eastern put forward to a northern line, who first abandoned the district, and then, by every exertion in their power, prevented such line from being carried until their own having proved a failure, they wanted the resources of the north to give them a fair average dividend. The South Eastern, however, confidently assume that they are the legitimate parties, and the others intruders, and this they do in their statement on these grounds—priority of design; the saving of expense in construction by adopting their plans; a better capability of working the line; the superior guarantee they can afford.

As to priority of design, this article shows that a North Kent scheme is older than the South Eastern, and that the South Eastern, who never proposed to go beyond Gravesend, abandoned even that plan in 1834.

As to priority by the possession of Mr. Walter's plan, we presume that will not be urged.

Priority as lessees of the Greenwich Railway cannot be sustained, for the Greenwich Company also abandoned the design.

The saving of expense asserted by the South Eastern Company has no foundation, for what the South Eastern claim as making a saving, namely, the Bricklayer's Arms branch, the Greenwich Railway, &c., the Gravesend and Rochester Railway, and the London Bridge Terminus, would, as has been rightly shown, be equally available to the North Kent Company. The reply to the statement, &c., p. 21, asserts that

seventeen miles of the line and a metropolitan terminus can be saved by the adoption of lines already constructed, or the construction of which is necessary for other objects under the arrangements of the South Eastern Company—an assertion in direct contradiction of facts. The North Kent line to Waterloo Bridge from Dover, is seventy-three miles, and the Southwark South Eastern North Kent is seventy-nine miles and a half from Dover to Waterloo Bridge.

The claim to a better capability of working the line by the possession of the existing South Eastern scheme, so far from being a temptation to the inhabitants of North Kent, is just one of the circumstances which causes an indisposition against the South Eastern, for that Company has declared the intention of working stopping trains on the North Kent line, and the express trains on the other route. The effect of this would be to injure North Kent traffic, and more effectually divert traffic over the South Eastern line, which has such a paucity of resources. The North Kent system, as our map will show, has its own wants; and the Company which carries out a North Kent line will be on a sufficient scale to work economically the whole line. The South Eastern have themselves given evidence on this point; for whereas their own line was on a more limited scale than the proposed North Kent, they dissolved the compact with the Croydon for a joint locomotive department, and started independently.

The point, however, on which the South Eastern chiefly rely, is the superior guarantee they can give for the execution of the works—as if the line were not sufficiently remunerative to be an inducement to capitalists at all times. As a Company, however, the South Eastern Company are least able of all Companies to give a guarantee, for their solvency has been called in question. Whereas they got their act in 1836, it was not till 1844 that it was opened throughout, and then after the most miserable financial career, in which they waded through the greatest difficulties. To exhibit this fully, nothing more is required than the following statement by the writer in *Herapath's Journal*, already mentioned, who gives the parliamentary capital of the South Eastern Railway from the published reports of the Company—* :

No. of Shares.		£		£		Less Discounts.	
	at						
28,000	50	...	...	1,400,000	...	...	234,464
28,000	"	50	...	1,400,000	...	...	700,000
28,000	"	50	...	1,400,000	...	...	504,000
42,000	"	50	...	2,100,000	...	...	700,000
31,500	"	50	...	1,575,000	...	...	630,000
157,500	"	50	...	7,875,000	...	...	2,768,264
New Capital	289,000	"	25	...	7,225,000	...	2,890,000
446,500				15,100,000		5,658,364	
Less discounts				5,658,464			
Amount in cash				£29,441,536			
Add additional capital under usual powers to borrow for new projects of 1846				1,445,403			
				£10,886,536			

* *Herapath's Journal*, (quarto series), vol. 8, No. 383, p. 372.

The enormous nominal capital of £15,000,000, has thus been raised, or is to be raised, at the extraordinary depreciation of nearly 40 per cent. The character of such a transaction, in a financial point of view, requires no explanation, can receive no apology; it is one of the unfortunate legacies left to Mr. Macgregor.

The Company, which comes forward as the guaranteeing power, which not so long ago could not get sixpence on its guarantee, and the operations of which were delayed from want of funds, would require to pay a dividend of five per cent. on the nominal capital, a net income of £830,000 per annum, or a gross income of a million and a quarter in round numbers, being at the rate of £21,600 a week. On the paid up money capital the net income required would be £544,320, or a gross income of about £16,000 a week, towards which the South Eastern Company have *already* £5,000 a week, including the London and Greenwich receipts, out of which they have to pay the lessors, also the Croydon toll, and a mortgage debt.

Mr. Macgregor has shown that he fully appreciates these difficulties, and his energies have been applied to overcome them; and, indeed, success in the North Kent contest will be one great step. Meanwhile, the argument of superior guarantee is valueless.

We are inclined to think, however, that sometimes the ingenuity of the South Eastern advocates outsteps the bounds of probability, and leads them occasionally within the suspicion of intrigue. Thus, in the hope of getting the North Kent traffic, they most liberally offer, if the North Kent line be conceded to them, not to declare a dividend on their old capital until they have carried out all the new works which shall have been conceded to them. This offer is, however, remarkable only for its ingenuity; for, as the North Kent line would be a lucrative one, so it would be sure to be prosecuted, while its completion would of itself give an enhanced dividend. We have never seen the parallel of such a case of self-denial, and consequently cannot quote one, and therefore we must leave this on its footing; remarking that, if the character of the South Eastern had never been seriously doubted, it could never have proposed terms, the only relevancy of which is, that they cast suspicion on the reputation of those from whom they come.

Much on a par with this was the extended accommodation to third class passengers, when it is a matter self evident, that unless passengers be carried cheaply, they will not come from the Weald; while if they are to compete with steamers in North Kent, they must also be carried cheaply. There can be no fancy prices to Gravesend while the river is open.

The offer to lay down the electric telegraph on the whole of their lines is to be put down with their other offers, for the electric telegraph is now a necessary working part of the railway system, and is in progress to become an element of profit.

To these offers may appropriately be applied the vulgar saying, "Thank you for nothing."

The last plea of the South Eastern is one *ad misericordiam*, that whereas they have spent so much money on their own original concern, and bought all the bankrupt concerns in the county, so they ought to have North Kent given to them to make up for their

losses. Now, as they obstinately persisted in the Weald line, with a view to the Brighton traffic, and as they bought the other concerns with a view to average their general loss, we cannot see what right they can have to ask the legislature for compensation at the expense of the public convenience.

While the South Eastern put forward certain claims, so to those claims several things are pleaded in bar, and among these are wilful injury to the public service, mismanagement, and bad faith.

If there is one fact clear more than another, it is that the South Eastern prevented a line from being carried through North Kent ten years ago, and that until within the last two years they have consistently opposed it by every means in their power. As they now confess that a North Kent line is wanting, and ought to be made, it does not seem that they can make an appearance in a Court of Conscience, when they are not purged of the offences they have already committed. This is one of the most important points in the case; for on the ground of public policy it is most improper that a party should be allowed to profit by his own wrong, and a direct encouragement would be given to railway Companies to oppose every useful undertaking until such time as they chose to take it into their own hands; and while a monopoly would be secured to existing Companies, the public service would be materially delayed and injured. To give the South Eastern the North Kent line on the score of any merit of theirs, is only comparable to rewarding rebellion, or giving a legal title to piracy, or receiving stolen goods; while, as we have just said, it is opposed to the grand principle of policy that "none should be allowed to take advantage of their own wrong."

The financial proceedings of the South Eastern Company stand out in such a light as to cast the gravest reflections on its old managers; and while the Company wilfully persevered in a bad enterprise, so they resorted to the most ruinous means of carrying it out; and it is objected that now, so far from having any right to reward, they are open to censure. The working of the line is also far from keeping up to the traffic.

In the present session, another hard contest has taken place. For a long while everything appeared in favour of the North Kent, who fought with consummate energy and ability; but of a sudden the scene again changed, a member was lost, and the South Eastern, by a casting vote, carry the day. On their side, too, if talent and perseverance could give a title to success, the South Eastern have shown those qualities. The prize was well worth contending for, and has been bravely won.

H. C.

WEXFORD, WATERFORD, AND VALENTIA RAILWAY.

This undertaking is one of those which has managed to scrape through the period of depression, dragging along a painful existence until, after all its narrow escapes, it may be regarded as virtually at death's door.

The plan of railway communication with Valentia harbour is one which, we believe, in a national point of view is valuable, and which

we, therefore, recommended to the public and advocated in these pages, with the firm belief that it would have met and deserved a better fate. The allotment of the shares produced some money, but not much, and serious mismanagement has aggravated this state of affairs.

Part of the business has been transacted in Ireland and part in London, and how it has been muddled away by most parties will, we apprehend, soon be matter of public notoriety and public discussion.

So long as the management could get engineers, traffic takers, reference servers, solicitors, and advertising agents, to give credit, the concern proceeded smoothly; but when the resources of the individuals employed could no longer meet the heavy drain, and it became necessary to call for funds from the committee, the service of the Company suffered most severely, and thence was a fertile source of the errors, bungling, and omissions which jeopardized the passing standing orders.

It was not until the limit of the time allowed by the standing orders that money could be borrowed or begged from various quarters, to make up a deposit, and even then it became necessary to reduce the original estimate, so as to make a new one, to get the amount of funds. Hence an insufficient estimate is one of the documents presented to the House of Lords, though Mr. Gravatt, the engineer, is not to blame for that.

On the part of the line between the Junction and Killarney, the concern has been most powerfully opposed in standing orders; and the committee, in the teeth of such facts, neither supplied money to enable those employed by them to satisfy the sub-contractors and assistants, nor would they advance sufficient funds to procure the necessary witnesses from Ireland.

Five pounds was, we understand, the sum offered to each of the local solicitors and agents, to pay their expenses in coming over here to fight the Company's battles; and one agent, who was sent to get thirty or forty necessary affidavits, was left in Ireland, unable to move for want of means.

Under these circumstances, the defeat of the bill, as tendered, was certain; and, indeed, the case was so miserable, that the promoters had to give it up in despair. The House of Lords, however, with the view of extending employment in Ireland at the present crisis, have allowed them to come up again, with the portion of the bill from Killarney to Valentia, and with the option of proceeding for the remaining part next year. The country between Killarney and Valentia is so deficient in resources and population, that it appears almost ridiculous to propose such an enterprise to any Company; while if, as is very likely to be the case, the best portion of the line should this session be given to the competing Company, the option of the Wexford, Waterford, and Valentia Railway Company to apply next year, will be worth very little, and the concern will be burthened with an Act of Parliament, which, however useful it may be to local landowners and jobbers, will be ruinous to the shareholders, if carried into effect.

The constitution of the directory, and the basis of the scheme, will be found in the prospectus, which we shall hereafter re-publish.

ATMOSPHERIC PROPULSION.

By MR. SMITH, C.E., OF TORONTO, CANADA WEST.

[We are indebted for this interesting communication to the courtesy and kindness of Mr. John Weale, the engineering publisher, to whom it was transmitted, and who has placed it in our hands for early publication.]

INTRODUCTION.

DURING the latter part of the year 1844, I was requested to deliver some lectures on the subject of railroads generally before the members of the Mechanics' Institute, Toronto; and in the early part of the year 1845 I was again requested to deliver a lecture on the same subject before the members of the Athenæum, a literary institution then recently established in that city. As the subject of railway communication became one of general interest to the Canadians, as well as to the inhabitants of other parts of the world, I was repeatedly applied to for information on various branches of that subject, as if I must have had a perfect knowledge of every improvement that was taking place in the construction and application of railroads in Europe.

To gratify this thirst of my townsmen for knowledge, I had frequent occasion to apply to England to acquire information myself. On one of the occasions I wrote to Mr. Pilbrow, for information on the merits of his improved atmospheric railroad. This application was kindly responded to, and on the 12th of August I received from him a small work, written by W. Jones, Esq., on atmospheric railways. The work is published by Sherwood. After a careful perusal of this work, I was convinced of the general imperfection of the atmospheric principle of propulsion as it then existed; and by the first post which left Toronto after the receipt of Mr. Pilbrow's present (being only fourteen days), August 26, 1845, I sent to England a description of an entire new principle of atmospheric railroad propulsion. Its application was not the same as that I now publish, but the principle was precisely the same; and in my communications I distinctly said that its application would be greatly varied, and that if a patent was taken out for it, it must expressly describe the tubes as being made partially elastic or perfectly elastic, partially flexible or perfectly flexible, &c. &c.

I may here state that this system of propulsion flashed so immediately upon the mind, from having early in the year 1843 invented a machine for a peculiar purpose, which required the application of several exhausted and compressed air chambers, to give it the effective power required.

In reply to the communications I sent to England August 26, I found there was no inducement for my friends taking out a patent for any atmospheric railroad power. I made no further communications on the subject; but the post which left England on the 4th of November, and arrived here on the 29th, brought a letter from a friend, stating that he either had entered or should enter a caveat for the

principle on that day. I immediately prepared, and within a few days, December 5, sent this friend a number of drawings and explanations; in them I strongly advocated the double iron tube with flexible sides, as the strongest and best that could be made or applied to the purposes of propulsion. In those communications I again strongly advocated the use of the compressed or exhausted air chambers; and, with other matter, said if a patent was taken out, it must express applying the power to other important purposes. On the 12th January, 1846, I sent to the directors of the Toronto and Lake Huron Railroad Company, some drawings, in which was represented the double iron tube with flexible sides; and on the 23d of January, 1846, I sent a copy of the same drawings to England; February 2, elevated railway papers; in this work is a copy of one of those drawings. On the 30th of January, I received the *Illustrated London News*, which first gave me an idea that a principle of propulsion so similar to mine had been invented by Mr. Nickels. Since that date the whole of these pages have been written. I have here only mentioned such facts as can be proved. The whole of the papers alluded to are in the hands of a friend in Liverpool. I lay no claim to the idea of working my tubes without a piston, but in one instance. (See Art. 37.)

As I must of necessity have some standard whereby to compute or estimate the merits of the various tubes respectively, I shall very frequently have occasion to mention Samuda's tube as the only one whose merits have been tested. To the inventors of that tube great merit is due; they have at least the merit of introducing the principle, and are deserving of compensation.

Toronto, Feb. 20, 1846.

A Description of W. Smith's Principle of Atmospheric Propulsion—showing its superior merits over other principles, including a description of several entirely new tubes, and various important suggestions for improving their construction generally:—

ART. 1.—From the peculiar nature of the atmosphere, there are but few instances where it is employed as a mechanical agent, that its original power is retained undiminished. These losses of power proceed from various causes:—First, the friction of the engine, which produces exhaustion or compression (as the case may be). Second, the loss from leakage and the friction of the air pump, while the process of compression or exhaustion is going on. And, thirdly, the friction of the machinery and leakage which occurs while such exhausted or compressed air is again employed for mechanical purposes.

ART. 2.—The extent of the first of these will only be the usual friction of the engine required to do the work which the atmospheric power is to perform, plus the friction of that surplus power which is required to balance the loss occasioned by employing atmospheric power. But as each engine when constructed is computed to perform its full quantum of work, this need not generally be calculated upon as a loss of power occasioned by employing the atmospheric pressure instead of that of steam.

ART. 3.—The second loss of power arises principally from the subtle nature of the atmosphere itself; for while the air is being exhausted from any chamber or vessel, the more perfect the exhaustion becomes—the greater the difficulty of maintaining the vacuum free from the ingress of the external air; for although the atmosphere possesses only a power of rather more than 14 lbs. per square inch, it is computed to rush into a perfect vacuum with a velocity equal to 70,224 feet per minute, so that an orifice indefinitely small would soon cause a great diminution of power by leakage. When the air is compressed into one-sixth or one-tenth its original volume, its tendency to escape becomes extremely great, and it is next to impossible to construct a cylinder and piston sufficiently true to compress it without considerable leakage. From its elastic nature air admits of great compression, but even then it has a more treacherous nature than steam, and is not so easily confined; therefore it is easy to conceive why great leakage must take place, and why the friction of the piston must cause a great diminution of power.

ART. 4.—As most immediately connected with this subject, I shall consider the third loss of power to arise from the valves and joints of a tube applied to purposes of propulsion, as in Samuda's atmospheric railway tube, which, by his own statement, appears to be equal to a loss of five horse power per mile.* This is a great detractor from the general merits of the atmospheric power as a propeller of carriages on railroads, but I trust the system I am about to introduce will, in a great measure, remedy this defect. Yet, with all these losses of power, there are many instances where the atmospheric pressure, judiciously controlled, might be employed with greater advantage than steam power, and of those instances, that of applying it to propel carriages on railroads appears one of the most important; as it must be remembered, that to construct a road suitable for the application of locomotive power, is attended with much more expense than to construct one for the exclusive application of the atmospheric power, and as expeditious travelling appears to be desired, it consumes much of the power of the locomotive engine to convey itself at that extreme velocity it is now required to travel even on a level road, and at a moderate elevation it would not be able to perform any effective work.

ART. 5.—It is much to be regretted that the absolute loss of power by using the atmospheric pressure cannot be calculated upon correctly, or established by a series of experiments on the best constructed atmospheric rail roads. In its present infant state, the loss should be estimated at an excess rather than otherwise: it may be one quarter or one third of the absolute power; and till some data are established, engineers cannot know what power they require for their steam engines.

ART. 6.—Where the atmospheric power has hitherto been employed to propel carriages on railroads, the first outlay has been so extremely great as to deter many railroad companies from *speculating* upon the advantages that may ultimately be derived from adopting it; for with all its merits it must be questioned if the present working system is much superior to the locomotive power.

ART. 7.—Since my attention was first drawn to this subject, my great aim has been to produce a more perfect system of atmospheric

* See W. Jones on Railways, page 77.

propulsion, and one that should be so cheap in its construction and original outlay as will be applicable to almost every railroad in the kingdom: how far my exertions have been successful remains for time to determine.

ART. 8.—My plan represents a double iron tube with flexible (leather)* sides—this shape of the tube gives great strength to resist the external pressure of the atmosphere with comparatively a small quantity of metal. Its proportions may be greatly varied. It will be observed that the flexible part is rather below the middle of the side; this enables us the more easily to protect the leather sides from rain, and there are shields intended as more perfect protectors; they are simply strips of sheet iron bolted to the sides when the leather joints are made.

ART. 9.—This is a double nine-inch tube, and will give a sectional area of 110 inches, after deducting the space occupied by the flexible sides, which are naturally pressed inwards when the air is exhausted. When this tube is working by exhaustion only, these deductions should be made, but when worked by compressed air, they should be added, giving them a greater sectional area; when working half by exhaustion and half by compression, then the original size of the tube should be calculated upon undiminished. The Samuda tube, to furnish a sectional area of 176 inches with the same strength, would require three times the quantity of metal required by this double tube. [See Art. 51 and 52, which show considerable more.]

ART. 10.—It will be shown that I purpose working, when required, partly by exhaustion and partly by compression, and therefore I acquire a greater power, when working with a total pressure of twenty pounds to the inch by this tube, than Samuda with a tube of his proportions working with a pressure of twelve pounds per inch.

Thus—Samuda's tube 15 in. dia. sectional area 176 in. } total pressure.

Working by exhaustion only, = to 12lbs per inch } 12 } 2,112 lbs.

The double tube 9 in. dia. with full deductions as
before stated, if working by exhaustion only,
area 110 in. } total pressure.

Working 10lb. by exhaustion 10lb. by compression = 20lb. 20 } 2,200lbs.

If the full undiminished areas of the tubes were calculated as they correctly should be in this instance, the tube would give 240lbs more power.

ART. 11. As this double tube is hermetically sealed throughout its whole length, conceiving it to work by exhaustion only with a pressure equal to 12lbs. to the inch, its sectional area being 110 inches, we shall have a power equal to 1,320lbs. without any deductions for the leakage of the long valve; and I am inclined to believe that Samuda's tube frequently does not yield a great power.

* I have here named leather, as my working models were made with that article, which answered, when well oiled, beyond my most sanguine expectations; but I believe a material is to be manufactured that would prove more economical in the first instance, if not so durable. It does not require the leather very heavy for my double acting tube.

ART. 12. It may not at all times be convenient to have these flexible sides made of the strongest materials, as that would increase the expense, and add friction to the working parts, the flexible sides in this, instance, if worked with the pressure above-named (20lbs. to the inch) will never have to resist a greater strain than 10lbs. to the inch. It must be subject to that strain when the tube is exhausted, but not more than 6lbs when it is extended or inflated with compressed air.

ART. 13. By inspecting a longitudinal section of my plan, it will be apparent that when the air is exhausted from the tubes, the external air will press the flexible sides inwards. Two wheels connected with the carriages are made to fit easily into these cavities or depressed sides; and when the travelling piston is pressed forward by the admission of the air behind it, the flexible sides are extended, and the wheels are pressed or forced forward in proportion to the pressure on the piston. In my working models I found the introduction of two wheels, to expand the flexible sides, very much to reduce the friction, I have therefore introduced them here. These pistons will require balancing similar to Samuda's piston, but I do not consider their united friction will exceed that of his individual one. Their combined surface area will be 9in. greater, but then I think it must be allowed that these flexible sides are expanded at a less cost of power than the opening and closing his longitudinal valve.

ART. 14.—Thus far I have shown this to be a simple atmospheric railroad tube, which can be worked by exhaustion only, similar to Samuda's plan. A tube in itself yet more simple, is the single one; but this tube requires a much greater quantity of metal to give it the same strength as the double tube. (See Art. 51, 52). Nevertheless, it would be a most valuable tube for many purposes and in many situations. It may be worked with the wheel on the top or the side, or any other part most convenient. It will always have the advantage of a less extent of joint, and a less quantity of the flexible material. The iron parts and the flexible parts may be united in any proportions, as the peculiar nature of the application of the tube may require.

ART. 15.—I may here observe, that at this remote distance from England, it is impossible to calculate the most judicious combination of the parts which should form these tubes. The merits of the different materials themselves, the original cost of each respectively, the expense of preparing, conveying, uniting, and fixing the same, and the purposes to which they are to be applied, must all have their weight in the selection of the best and cheapest tubes for any definite purpose. I can here only be expected to speak in general terms.

ART. 16. The single tube last described, can be worked either by exhaustion or compression separately, or by both jointly, and it is capable of being enlarged to any convenient extent, and it may be reduced to suit the most limited quantity of travel.

ART. 17.—I have next to describe a plan showing the mechanical arrangements that should be applied to all atmospheric railroads, as it would in most instances be productive of great advantage. There is an atmospheric tube of any shape or construction with air-exhausted chambers, which the engines at either station are continually exhausting, so that they may be considered as always ready to be employed; and when a train is ready to start in either direction, by a given signal

the valves which unite the tube with these chambers are opened, and the air from the tube immediately rushes into the chambers till the tube becomes sufficiently exhausted, when the valves should be again closed. This operation will be very quick, and cause little if any delay at starting. The small feeding tubes as here represented, are so placed that the trains may start the instant the valves are opened, as it is better they should acquire their extreme velocity gradually than by any sudden or instantaneous impact. It will be seen that these small feeding tubes take the air from the tube immediately before the piston.

ART. 18.—The advantage of this arrangement is most obvious, as a small engine, by constantly working, will generate as much power as a large engine working only at intervals. Thus, Samuda's engine is said to stand still twenty-five minutes, and work five minutes,* being only one-sixth of the full time. So at that rate a twenty-horse engine kept constantly working would perform the same labour as a 120-horse engine that worked only one-sixth of the time. But allow they worked only one-third of the full time, then an engine of one-third the power would be ample.

ART. 19.—Another advantage of this arrangement is, that the tube being exhausted so quickly, has only half the time allowed it to admit air though any imperfect joint.

ART. 20.—By thus requiring only engines of small power, a great reduction will be made in the first outlay. Against this it may be argued there is the additional expense of the chambers. Their first cost will be smaller than the cost of the additional power, and their removals will be less. To detail minutely the methods of constructing these chambers would greatly assist to swell this sketch beyond those limits to which I wish to confine it.

ART. 21.—The small tube is a communicating tube, uniting the two engine stations, or rather the exhausted chambers at or between those two stations; so that, instead of having two engines at each station to prevent the possibility of stopping for repairs, the engine at either station may exhaust the reserve chambers at either of the stations next in succession.

ART. 22.—In a few practical instances, it may be desirable to have some compressed chambers in addition to the exhausted chambers, but this will not frequently occur; for when the train is started the engine itself will force into the tube a sufficient quantity of air of the density required to supply the defective power of exhaustion.

ART. 23.—For some time after I commenced the investigation of this subject, I thought of supplying my main tube with air by numerous valves attached to a small tube which communicated with reservoirs of power placed at moderate intervals along the road,† and to render this system perfect I had arranged an apparatus to open or shut the valves at many yards in advance of my travelling piston, and an equal distance behind it. But after maturely considering the practical merits of this system, I did not think it so generally advantageous as that I am now describing.

* See Jones on Railways.

† In my first communication to England, August 26, I said much respecting the control I had over the speed of the carriage by these valves.

ART. 24.—On a road where frequent trains are required, I propose having intermediate stations, at each of which there will be a main or sectional valve on the atmospheric tube. If the engine stations are at five or ten miles distant from each other, these intermediate stations will divide the line into any required number of divisions.

ART. 25.—At starting, we consider these sectional valves closed, but before the train arrives at No. 1, the valve at that spot is opened by an attendant (who has before him a gage, always showing the position of the train, and the pressure of the air within the tube); and if the attendant neglects opening the valve, the train performs that office itself. As soon as the train has passed No. 1 on to division 2, the valve is again closed, being first admitted to propel the train forward as before, without the least diminution of power. The valve being now closed, the division No. 1 is ready for a second exhaustion; this is done instantly, by admitting the air of the tube into the exhausted chamber, and a second train may start from station A. By continuing this operation trains may start as frequently as required.

ART. 26.—If these intermediate stations are only one mile distant from each other, trains may start in one direction every two or three minutes if required. I presume that roads requiring trains to start thus frequently will but rarely exist; if they should, this at least shows how easily it may be accomplished.

ART. 27.—These intermediate stations may also be used for taking up and setting down passengers, as trains can as readily start from them as from the engine stations. It will be apparent that when the tube of division one is exhausted trains may start in either direction. *A train* may be only two carriages, or *EVEN ONE*.

ART. 28.—Thus it is proved, by this system, how frequently trains may start in either direction, without the possibility of a collision. By Nickels's plan one train may overtake another in the dark or foggy weather, before the conductor is aware of it.

ART. 29.—As I before stated (Art. 23), I consider this system preferable to that of opening numerous valves by the progress of the carriages. Are not these valves liable to derangement, and would not their introduction add greatly to the expense of the original outlay?

ART. 30.—For suddenly checking the progress of the carriages, the rollers or wheels will be disengaged from the tube; and to prevent the piston from running forward when the carriages are disengaged from it, I have devised a valve within the piston itself, which shall open the instant the connection between the carriages and the piston is discontinued. It is not represented.

ART. 31.—In cases similar to those I have described, it is presumed the electric telegraph is employed upon the line of road, and that the propulsive power is by exhaustion only. Then, if railroad Companies would reconcile themselves to small but frequent trains, it is most evident that an immense quantity of travel may pass along the road with but a very small tube. These trains may be single carriages only, of either passengers or goods; the latter will not be required to travel so fast as the former, consequently, they may contain a greater weight.

ART. 32.—Although I have already, in representing the merits of the double tube (as to strength) over Samuda's single tube, spoken of

working by exhaustion and compression jointly, I see no reason why the power of exhaustion would not generally be sufficient, if frequent trains were but established.

ART. 33.—If one part of the road had steep inclinations, and required a greater power than the other, the engine might be placed convenient to that part of the road. Then the *compressed power* may aid the exhausted power without any addition to the original expense, except the air pump. It is not the least necessary that the engine stations should be the principal passenger or traffic stations.

ART. 34.—In the practical illustrations I have given, it is evident, to employ the power of compressed air throughout the whole line, a small communicating tube must unite the reservoirs or chambers of compressed air of all the principal and intermediate stations; so that, in many instances, it will be preferable to employ a larger tube, working by exhaustion only, than a smaller one, worked by the united powers. This observation will not apply when one train can travel the whole distance between the engine stations before another is required to succeed it.

ART. 35.—The express purpose for which any road is constructed, and the quantity of travel upon it, will regulate the distance of the engine stations from each other. They may be three, five, seven, or even ten miles apart, without inconvenience. This point, like many others, must be regulated entirely by the calculations which affect them. (See Art. 15.)

ART. 36.—I also employ what I term the flexible tube. If employed for propelling carriages on a railroad, it may be secured to the sleepers, in which case there is a bar of iron, to which the edges of the flexible material employed are securely bolted. It will be seen that this tube can only be worked by compressed air.

ART. 37.—When the compressed air in the tube is allowed to escape, the weight of the upper part of the tube itself will force out the common air that would have remained in it, had it been a stiff tube, and it will lay in a flat wide state. It is in this state that I once had an idea of placing it on a board, and perfecting the vacuum by running a roller over it, as mentioned in the Introduction, for which there would be wheels connected with the carriages—an elevating wheel, and expanding wheels, all of which travel before the piston.

ART. 38.—Another modification is the tube I call the perfect elastic, and if a tube could be constructed quite air tight, with that property at a moderate expense, it would be a most valuable one. This I consider possible, but cannot enter fully into the details from the cause mentioned. (Art. 15.)

ART. 39.—This tube is intended to be employed upon the Samuda principle, with Hallette's lips, although their principle of action and construction is different. As the travelling piston moves forward, a flexible circular band is pressed closely between the lips, so as to seal and make them perfectly air tight, if they are not so before.

ART. 40.—The moment the exhaustion of the tube commences, the pressure of the outward air will effectually or hermetically seal them. Indeed, the elastic power of the tube should, of itself, be sufficient to close these lips, and then the flexible band above named may be

entirely dispensed with. These lips might be furnished with some unguent slightly adhesive to assist their first partial sealing ; or two wheels might follow the piston, and press the edges of the tube together sufficiently to seal their lips.

ART. 41.—If the tube is not provided with sufficient elastic power to hold the lips before the piston tightly together, two wheels should precede the piston, so as to prevent the tube expanding too far in advance of it. Indeed, these wheels will be useful in other respects, as the expansive force of the tube itself pressing on them will furnish a large portion of the grip required to propel the carriages forward, so that the connecting arm which unites the carriages to the piston would be required to be very small, or, rather narrow ; and this again would prevent the necessity of the lips opening wide. If these lips are made of an elastic and flexible material, there would be no absolute occasion for their ever breaking contact, except when the arm would displace their surface in its progress, but not more. Further,—

ART. 42.—If the elastic power of the tube was sufficient to hold the lips together, then, instead of the two wheels, which precede the piston, pressing the lips of the tube together, they should be placed more in advance, and two other wheels, should be employed to expand the lips of the tube sufficiently to allow the connecting arm to pass without much friction. This tube can be worked by exhaustion only.

SUGGESTIONS FOR THE CONSTRUCTION OF THE ELASTIC TUBE ABOVE DESCRIBED.

ART. 43.—The iron sheets, of which the inner part is composed, should be of the best quality, and milled out to suit the purpose for which it is required—viz., thickest in the middle and tapering gradually to the edge, which should be left of sufficient thickness to resist the external pressure upon the tube. These sheets should then either be cramped into the required tube shape, and afterwards hammer hardened. Probably the operation of hammer-hardening, if performed on a circular iron block, would give it the necessary cylindrical shape. I mention this hammer-hardening particularly, as it gives an elastic property to the metal. The outer side of this tube should be covered with cotton cloth, or other article, saturated with an adhesive unguent that would exclude the air. Again, over this article should be thin sheets of iron, like plates of Russia iron, hammer-hardened. These sheets should break the joints of the former sheets or plates, and the whole bolted together. It might not be wise to rivet them together till the merits of the tube were sufficiently tested. I believe copper rivets would answer extremely well for uniting these sheets of iron and the material together.

ART. 44.—If it were practicable to form a perfect elastic tube similar to that just described, a partial elastic tube would answer equally well, as the lower part might to any height be of cast iron, and the upper part elastic. These elastic tubes would save an immense quantity of metal, as their close contact at the top, and their yielding nature, would relieve the tube from the great strain which the Samuda tube of equal diameter would be subject to by the external pressure of the atmosphere.

ART. 45.—Another improvement effected, is a tube partially elastic

and partially flexible, being a union of the two principles of construction. The top and the bottom of this tube are elastic; the sides flexible.

ART. 46.—Its construction admits of great variation, and practice only could determine which would be the most judicious mode of perfecting it. It presents no difficulties, and an ingenious English artisan would *soon perfect it*. It would be a most valuable tube if well constructed. Its action is the same as the double iron tube first described. Its having two flexible sides gives it this peculiar property, viz., that when the air is exhausted the top part of the tube falls down, and the flexible sides are protected by being pressed within the tube; and before the side wheels can be brought into action, the top of the tube must be raised up by an elevating wheel preceding the piston.

ART. 47.—If this tube were suspended from above, and the wheels attached to any carriage or article below the tube, the weight of the bottom would always keep the flexible sides only moderately indented when the air was exhausted from the tube. As I have a peculiar use for a tube thus suspended, I shall refer to this tube again.

ART. 48.—For railway work the bottom of this tube might as well be of cast iron, like the partial elastic one before described; with such a combination, this tube would then be partially solid, elastic, and flexible—with the top and the bottom both elastic—the elastic power of the material would, as described in a former instance, greatly assist the grip of the propelling power.

ARTS. 49 and 50.—There is another form of the perfectly flexible tube, with a small feeding tube within it; for this tube I have a particular employment, and there are several other ways of applying it, which it is not necessary to explain here.

THE COMPARATIVE MERITS OF THE SAMUDA SINGLE TUBE, FIFTEEN INCHES DIAMETER, AND W. SMITH'S DOUBLE TUBE, TEN INCHES DIAMETER, TO RESIST FRACTURE.

ART. 51.—Allowing each tube to be exhausted, so as to cause an external pressure equal to 10lbs. on the square inch, by comparing the two, it will be evident that if the Samuda tube is broken by a pressure on the sides, it must break at the point *c*, which is 15 inches from the point *a* where the tube is open; and although the side *D* is circular, and every inch is pressed upon equally, the side itself is only a bent lever, whose length from the point where fracture must take place is equal to the diameter of the tube 15 inches, and the pressure on each inch being 10 lbs. $15 \times 10 = 150$ lbs., the pressure along *a-c* equally distributed; but this is only equal to 75 lbs. applied at the point *a*, the end of the lever *a-c*; so the real pressure on one side, to cause fracture at *c*, is $75 \times 15 = 1125$ lbs. But it is evident in this instance there are two sides equally pressed upon at the same time, and having an equal tendency to cause fracture at the point *c*, so that $1125 + 1125 = 2250$ the actual pressure to produce fracture at the point *c*. The pressure on any point of the surface of the tube may be ascertained in the same way.

ART. 52.—In the double iron tube, *e* is the point where fracture must take place; and although the line may be considered as the arm of the

lever which causes fracture, that is reduced to $c w$, the line perpendicular to direction, in which the fracture must take place, and $c w$ in the figure is only nine inches, so the full pressure would be $9 \times 10 = 90$; but this is only equal to 45lbs. applied at w to cause fracture, and it becomes $45 \times 9 = 405$ lbs., the power to cause fracture at the point c , and from the peculiar shape of this figure, the two sides cannot have the same tendency to cause fracture at one point, as in Samuda's. Fracture cannot take place through the whole of the centre iron plate, but it must be on the side of it; and in this instance there would be two distinct lines of fracture, viz. $c e$, $c e$; so that in reality the force to break the Samuda tube would be 2,250lbs, while that to break the double iron tube is only 405lbs.; and it has been shown (Art. 10) that a nine-inch double tube, when working with a power of 10lbs. by compression and 10lbs. by exhaustion, gives a greater power by 328lbs. than the Samuda tube 15in. diameter, working by exhaustion with a pressure of 12lbs. to the inch; but it must be remembered the tube of which the strength has been computed above is 10in. diameter. These observations must confirm the respective merits of the two tubes.

ART. 53.—Mr. Nickels' principle of propulsion can only be worked by compressed air. The trains must be small, or the construction of the tube must be expensive; or if large trains are worked their speed must be slow and limited. I think if put into practice it will prove defective in power, unless for small trains at moderate velocities. I cannot attempt here to enter minutely into the circumstances which must affect the construction and application of this principle of propulsion; a short time will convince those interested as to its peculiar merits. I could suggest many improvements in its construction as represented.

ART. 54.—If the principle of propulsion I have invented is put in comparison with Mr. Nickels', my unbiassed opinion is that mine would prove superior. I prefer working by exhaustion, when that can be done without an expensive tube. Allowing the power of compression and exhaustion to be equal, the cost of the tube becomes an important thing in these calculations. The double tube has been shown to have great strength and great power, and at the same cost, I believe, superior to any yet constructed. A constant pressure must be more powerful than an intermitting one like Mr. Nickels'.

ART. 55.—From the cause mentioned (Art. 15), I cannot now estimate the cost of the respective tubes I have described. Their number is great, their merits various; but their greatest recommendation will always be, abundant power at a moderate cost, with permanent materials.

CONTRIBUTIONS ON RAILWAY STATISTICS.

By HYDE CLARKE, Esq.

IN no department of business scarcely has the value of statistical studies been more shown than in railway administration, nor in any department have they been so much pursued. In private affairs, in many branches of trade, from the inability to get at an extended knowledge of facts, experience becomes merely local or individual, and in the infancy of the railway system the same defect was felt. The establishment of the railway press, and the facilities afforded for communicating information, presented the means of overcoming this evil, and as facts accumulated, so were their results systematised, and brought to bear practically on the advancement and direction of the railway system. Though of course there has been an indisposition in some quarters to communicate information, and an inaptitude in others, yet the general feeling of energy and public spirit in railway chairmen, directors, and officers has overcome difficulties, and masses of figures have been brought together from time to time, closely canvassed, and ably analysed.

There is this incentive to the prosecution of railway statistics, that whereas in other branches of statistics, the student is reduced to a mere theorist, from the inaptitude of carrying out the results he may obtain, in railway administration, it often lies within the power of the operator to ensure their immediate application. There is also a large public joining and sympathising in the same pursuits, and a truth once developed is never allowed to be smothered or crushed. While, in politics, popular ignorance is made an instrument of party warfare to impede the progress of sound views, the railway public are always attentive to any statement of figures and facts, whether in writing or by speech; and being men of business, have such practical acquaintance with the forms of analysis, as to be able to arrive at a sound judgment and conclusion. At the same time, the study of railway statistics, though sometimes taken up elsewhere as a popular subject, never thrives so well as among its own attached circles, who have not merely motives of science or of curiosity to urge them, but the strongest influence of interest.

Railway men are essentially men of figures, and it is by their attainments in this respect that most of them are distinguished, and without such qualifications the heavy responsibilities they bear could never safely be entrusted to them. When, however, they are mentioned as men of figures, a popular expression is used which includes the characteristics of a proper and practical application of the results to be deduced from figures—not a pure mathematical turn of mind, for that is too apt to show more attachment to forms than to results, while it is rarely capable of combining the true moral results. Mr. Hudson, for example, is neither a mathematician, nor a man of a mathematical turn of mind; but as a man of figures, and as a calculating man, a character like his is well understood by English and Americans. The study of figures of itself no more makes a practical man than anything else; other qualities must be added to make the business man, and those fortunately are to be found, to a great extent, among railway administrators.

The desire of shareholders to know the state of traffic in new undertakings, led to the weekly publication of traffic returns, and these have furnished constant elements for study and for practical application. It was found, at an early period, that the development of railway traffic depended chiefly on the extension of railway accommodation; and hence, in order to realize profitable results as lines or portions of lines opened, it was self-evidently necessary that extensions should be carried out. This powerfully influenced the great exertions which were made in 1838, and the subsequent panic years, for the promotion of the railway system, and it has also constituted the policy on which the great companies are now acting of pushing branches and extensions in every available quarter. It is from no insane desire of speculation, for it is well known the companies have always held back rather than moved forward, and have never been urged by rash views. Another important result has been the undertaking by the great companies of branches, poor or unprofitable in themselves, which, however, repay the investors by bringing increased traffic on the main line. The extent of railways in connection with any particular line has always a great effect on its traffic; thus the London and Birmingham, and Grand Junction traffic has reached a high pitch, while the Great Western and Eastern Counties have been kept back, and the results of extension constitute an important consideration as to the prospective value of these latter undertakings. The London and Birmingham is the trunk of lines reaching to Newcastle and Carlisle, sending off vigorous branches in every direction, while these results have to be obtained on the Great Western and Eastern Counties from the works in progress.

Again, in the obtainment of a per centage government tax on railways in lieu of the tax per head on passengers, railway statistics exercised a great influence; but their chief effect has undoubtedly been in the promotion of cheap fares. Those who advocated such a doctrine as that cheapness would bring the greatest revenue, might have naked theory to support them, but they had powerful popular prejudices to contend with on the part of directors and shareholders; and it was only by a careful collection of facts and figures, and by the closest analysis of them, that a safe and undeniable foundation was obtained for the general establishment of cheap fares as a doctrine. The establishment of this fact has been of late brought to bear valuable fruits in every branch of traffic, more particularly in goods traffic, which having been long neglected from want of accommodation, and from too high charges, has been lately prosecuted with much vigour and effect.

The discovery of the mean months of railway traffic by Mr. Houldsworth, the chairman of the Manchester and Leeds Railway, afforded a convenient mode of ascertaining the rate of progress of traffic in advance on reaching the mean period.

The prosecution of these studies will no doubt afford equally valuable and interesting results, for the field is wide, and the railway system in its infancy. With regard to two subjects hitherto little studied statistically, but most important in reference to the value of the railway system, the fluctuations in investment, and the development of internal resources, I have in the present paper recast and systematized some observations, which I have published in a restricted form elsewhere.

No. 1.—THE FLUCTUATIONS OF RAILWAY INVESTMENT.

A most important consideration in railway financial operations, which has been fully appreciated by Mr. Hudson, Mr. Glyn, and other leading men, but, unfortunately, not well understood by the public, is the degree of fluctuation in shares consequent upon periods of prosperity and panic. Undoubtedly the more a company is advanced, the more its traffic is developed, the greater is its intrinsic value; but the market value, depending upon other circumstances, may not only be materially depreciated, but brought very much below the real value. In railway matters "the value of a thing" is not always "the price it will bring," but the very contrary—being often exorbitantly swollen by premiums, or as absurdly depressed to a discount. Railway madness, it should be borne in mind, is not restricted to periods of what are called speculation, but shows itself much more remarkably in periods of depression. If there is a mania for buying extravagantly, so there is a mania for selling improvidently, and the losses have been more in the latter way than in the former. Assuredly those who invest in railway undertakings with the view of obtaining a permanent and steady market, are exposed to the greatest disappointment; for, as we have lately seen, a most extravagant panic may parallel most extravagant speculation.

By a proper observation of facts, holders will be warned against the dangers which threaten them in future panics, while an encouragement will be given to investors to seek those periods for purchase most favourable for a low price, with the strong assurance of being amply rewarded by a future rise. In time, perhaps, we may hope that reason will bear a greater part in share operations; but, certainly, hitherto, feeling, without regard to judgment, has had a greater ascendancy. If directors had greater knowledge or greater firmness, heavy sacrifices for expediency, depreciation and preference shares would be less resorted to; and shareholders possessing a greater confidence would not allow their property to be so run down, and their resources, consequently, seriously damaged, when, by waiting a due time, not merely a full value, but an enhanced value would be obtained.

One of the best lessons for railway shareholders, speculators, and investors is to be found in the following table, showing the lowest price to which the shares of established lines have fallen of late years, and the maximum price which they have reached. In order to show this more effectually, and to afford better means of comparison, as well as to avoid complexity, and save the reader the trouble of calculation, the amounts, instead of being given in shares of £20, £50, or £100, with so much paid up, have all been reduced to one standard, £100 being taken as the par price:—

	Date.	Price.	Date.	Price.
	£		£	
Hull and Selby - - -	1839	25	1845	212
Eastern Counties - - -	1840	35	1845	150
Manchester, Bolton, and Bury - -	1840	37	1845	120
Bristol and Exeter - - -	1840	37½	1845	136
Birmingham and Derby - - -	1843	38	1846	115

		Date.	Price. £	Date.	Price. £
London and Greenwich	-	1841	40	1845	111
Northern and Eastern	-	1839	43	1845	160
South Eastern	-	1842	46	1845	143
London and Blackwall	-	1841	48	1845	60
Birmingham and Gloster	-	1843	48	1845	134
Manchester and Birmingham	-	1841	50	1845	188
Edinburgh and Glasgow	-	1840	55	1845	150
Midland Counties	-	1840	60	1846	145
London and Brighton	-	1840	60	1845	152
Great North of England	-	1843	60	1846	215
Glasgow, Kilmarnock, and Ayr	-	1843	64	1845	134
Dundee and Arbroath	-	1843	64	1845	144
London and Croydon	-	1839	70	1845	164
North Union	-	1839	70	1846	208
Chester and Birkenhead	-	1845	73	1845	120
North Midland	-	1841	74	1846	143
Manchester and Leeds	-	1841	75	1845	260
Lancaster and Preston	-	1842	85	1845	120
Dublin and Drogheda	-	1844	85	1845	160
London and South Western	-	1839	88	1845	192½

To render these figures more accessible for reference, they are, in the following tables, given with the names of the companies arranged alphabetically :—

Birmingham and Derby	-	1843	38	1846	115
Birmingham and Gloster	-	1843	48	1845	134
Bristol and Exeter	-	1840	37½	1845	136
Chester and Birkenhead	-	1845	73	1845	120
Dublin and Drogheda	-	1844	85	1845	160
Dundee and Arbroath	-	1843	64	1845	144
Eastern Counties	-	1840	35	1845	150
Edinburgh and Glasgow	-	1840	55	1845	150
Great North of England	-	1843	60	1846	215
Glasgow and Ayr	-	1843	64	1845	134
Hull and Selby	-	1839	25	1845	212
Lancaster and Preston	-	1842	85	1845	120
London and Blackwall	-	1841	48	1845	60
London and Brighton	-	1840	60	1845	152
London and Dover	-	1842	46	1845	143
London and Greenwich	-	1841	40	1845	111
London and South Western	-	1839	88	1845	192½
Manchester and Birmingham	-	1841	50	1845	188
Manchester, Bolton, and Bury	-	1840	37	1845	180
Manchester and Leeds	-	1841	75	1845	260
Midland Counties	-	1840	60	1846	145
Northern and Eastern	-	1839	43	1845	260
North Midland	-	1841	74	1846	145
North Union	-	1839	70	1846	208

It is seen that the range between these discount and premium prices

is very great in almost every instance, and in some cases realising a very large per centage, which is shown below:—

North Midland, fluctuation, per cent.	-	-	71
Midland Counties	-	-	85
Birmingham and Gloucester	-	-	86
London and Brighton	-	-	92
Edinburgh and Glasgow	-	-	95
Bristol and Exeter	-	-	100
London and South Western	-	-	104
Northern and Eastern	-	-	117
North Union	-	-	138
Manchester and Birmingham	-	-	138
Manchester, Bolton, and Bury	-	-	143
Great North of England	-	-	155
Manchester and Leeds	-	-	185
Hull and Selby	-	-	187

While the fluctuation ranges so high the basis necessarily varies; and to get the true extent of fluctuation, as influencing investment, we must calculate it not on the par price, but on the discount price, when the results are still more extraordinary. To show the practical working of investment at a discount price, in a given number of years, the following table has been calculated, in which, in all cases, the discount price is taken as £100, and the ultimate price realised is shown, the original purchase price of £100 being of course included in the sale price. This table is founded on the preceding tables, where the operations are taken as a purchase at a discount in the low years, and the sale at a premium in the high years. An investment

In 7 years of £100 produced	£800, £375, £300, £230, £220
In 6 " 100 "	400, 350, 250, 240
In 5 " 100 "	360, 340, 275, 200
In 4 " 100 "	340,
In 3 " 100 "	350, 300, 280

It will be seen that in all these cases the capital was more than doubled in seven years, and in some cases doubled in three years, while in many cases it was trebled, and sometimes even quadrupled. This is also independent of the profit on extension shares, which has accrued of late years, and generally fallen to the lot of purchasers at a discount. These parties have also received enhanced dividends.

In this way, and not by gambling and time-bargains, have those large fortunes been made by railway men, which have been the cause of so much misapprehension among the public. We know of more than one case where an investment of five-and-twenty thousand pounds, six or seven years ago, has now produced a hundred thousand pounds, while the gains of the large holders of that period have been enormous. While this state of affairs is to be regarded as a certain fact it is no miracle, but only the sure result of long experience in the money market, and it well deserves the steady attention of all those who have made railway investment one of the subjects of their study or ambition.

No. 2.—PASSENGERS AND FARES.

The total number of passengers, as given in the Board of Trade returns for the year ending 30th June, 1844, is 27,763,602½, and for the year ending 30th June, 1845, 33,791,253½, being—

	1844.	1845.
1st class - -	4,875,332½	5,474,163
2nd class - -	12,235,686	14,325,825
3rd class - -	8,583,085½	13,135,820
Mixed - -	2,069,498½	855,445½
	<u>27,763,602½</u>	<u>33,791,253½</u>

It is very evident, from the number of third class passengers below that of the other classes, that the due extension of railway travelling among the less wealthy portion of the population has not yet been reached; but still the returns shows a great progress in this direction, for whereas the increase on the

1st class is - - -	12 per cent.
2nd class is - - -	17 per cent.
3rd class is upwards of - -	50 per cent.

And exhibiting the disposition which exists, on the part of railway companies to give increased accommodation to all classes of society.

The amount received for each class is as follows :—

	1843-4.	1844-5.
1st class - -	£1,432,688	£1,516,805
2nd class - -	1,375,679	1,598,115
3rd class - -	483,069	651,903
Mixed - -	147,858	209,518
Total - -	<u>£3,439,294</u>	<u>£3,976,341</u>

The increase of returns on the year 1844-5 was, therefore, upwards of half a million on passenger traffic alone. On gross receipts from all sources it stood thus :—

1843-4 - - -	£5,074,674
1844-5 - - -	<u>6,209,714</u>

Increase - 1,135,040

The rate of fares on the lines included in the above returns stands thus at the end of the year 1845 :—

	Ex- press. d.	1st. Class. d.	2nd. Class. d.	3rd. Class. d.
Great Western - - -	3.00	2.74	1.60	1.
London and Birmingham - -	2.88	2.45	1.81	1.
Grand Junction - - -	2.44	2.08	1.71	1.
Midland - - -	—	3.21	2.19	1.
Birmingham and Gloucester -	—	3.16	2.37	1.
Chester and Birkenhead -	—	2.00	1.60	1.
Great North of England " " and Selby - - -	3.46	2.93	2.13	1.
	—	1.93	1.54	.967

	Ex- press. d.	1st. Class. d.	2nd. Class. d.	3rd. Class. d.
Lancaster and Preston	-	3.30	2.10	1.
Leeds and Selby	-	2.66	2.00	1.
Brighton	2.97	2.37	1.78	1.18
Croydon	-	1.42	1.14	.85
South Western	2.87	2.48	1.91	
Manchester and Birmingham	2.47	2.11	1.62	1.
Manchester and Leeds	-	2.28	2.00	1.
Newcastle and Darlington	3.23	3.07	2.15	1.
Newcastle and Carlisle	-	2.40	1.80	1.
North Union	-	2.45	1.63	1.
Preston and Wyre	-	2.52	1.89	1.
South Eastern	2.45	2.04	1.36	.82
York and North Midland	-	3.00	2.25	1.

The reductions made by the several companies in the two years included in the Board of Trade returns are as follows :—

	1st. d.	2nd. d.	3rd. d.
London and Birmingham	.74	.32	.48
Grand Junction	.92	.41	.59
Great North of England	.53	.26	.60
London and Brighton	.47	.11	
South Western	.70	.42	.26
Manchester and Birmingham	1.12	.77	
Manchester and Leeds	.94	.23	.41
Midland	-	-	.41
Newcastle and Darlington	.15	.30	.38
North Union	.54	.54	.36
South Eastern	.48	.28	.10
York and North Midland	.50	.25	1.00

The relative numbers of first, second, and third class passengers in the first half of 1845, was as follows :—

	1st. Class.	2nd. Class.	3rd. Class.
Great Western	239,710	648,906	141,134
London and Birmingham	169,963	298,132	147,809
Grand Junction	78,861	112,741	85,437
South Western	108,459	203,501	70,810
Bristol and Gloucester	63,474	153,684	66,921
Eastern Counties	122,202	253,743	104,318
Great North of England	19,075	29,489	47,353
Liverpool and Man	119,483	158,415	257,489

No. 3.—CATTLE TRAFFIC.

It is not so easy to get at the total of the cattle-traffic as it is of the passenger-traffic ; for the returns from many Companies are very defective, and it is difficult to separate the several branches of traffic. The following table will show the number of cattle of each class conveyed.

Number of cattle carried in the year beginning 1st July, 1844, and ending 30th June, 1845 :—

	Cattle.	Calves.	Sheep.	Pigs.
Bristol and Birmingham	1,488	—	5,514	21,596
Bolton and Leigh	—	—	—	2,355

		Cattle.	Calves.	Sheep.	Pigs.
Chester and Birkenhead	- -	1,293	10,075	5,478	926
*Dublin and Drogheda	- -	800	—	2,000	4,000
Dundee and Arbroath	- -	298	—	19	66
Eastern Counties Old Line	- -	18,092	—	87,794	3,996
Ditto ditto N. and E.	- -	2,569	—	3,770	232
<hr/>					
Total Eastern Counties	- -	20,661	—	125,564	4,228
Glasgow and Greenock	- -	573	—	1,518	—
Glasgow and Ayr	- -	2,274	—	4,786	292
Grand Junction	- -	14,348	—	7,574	148,650
*Liverpool and Manchester	- -	8,500	—	18,000	108,123
London and Birmingham	- -	31,055	1,661	166,719	59,196
<hr/>					
Total London and Bir. Amal.	- -	53,903	1,661	192,293	315,969
*Great North of England	- -	19,685	—	20,000	5,000
Great Western	- -	14,058	—	172,264	52,443
Hull and Selby	- -	1,998	—	36,328	699
South Western	- -	2,763	—	53,441	3,089
South Eastern	- -	1,559	—	28,747	218
Brighton	- -	1,244	202	7,910	142
Manchester and Leeds	- -	9,686	—	149,022	27,485
Maryport and Carlisle	- -	20	134	227	221
*Midland	- -	30,000	—	120,000	30,000
Newcastle and Carlisle	- -	3,782	—	36,525	5,116
Newcastle and Darlington	- -	10,096	—	6,621	730
Brandling Junction	- -	726	—	6,500	3,700
Newcastle and North Shields	- -	1,649	606	23,777	493
North Union	- -	2,811	2,891	26,952	20
Preston and Wyre	- -	377	—	948	736
Sheffield and Rotherham	- -	172	602	39,006	756
Stookton and Darlington	- -	966	—	1,026	281
Ulster	- -	550	—	372	17,912
York and North Midland	- -	15,364	—	87,639	31,708
Whithy and Pickering	- -	—	—	504	—

Total - - - 210,000 16,000 1,150,000 530,000

For the reason before assigned this does not represent the total conveyed on railways, which may be fairly assumed as follows in the year 1844-5:—

Cattle	- - -	220,000
Calves	- - -	16,000
Sheep	- - -	1,200,000
Swine	- - -	550,000

1,986,000

being nearly two million head of animals.

The amount of revenue derived is large, and was in the year ending 30th June, 1845, as follows:—

	Cattle. £	Sheep. £	Pigs. £	Total. £
Bristol and Birmingham	- -	—	—	1,159
Chester and Birkenhead	- -	381	45	445
Dublin and Drogheda	- -	—	—	300
Dundee and Arbroath	- -	—	—	30

* Estimated amounts.

CONTRIBUTIONS ON RAILWAY STATISTICS.

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	Cattle. £	Sheep. £	Figs. £	Total. £
Eastern Counties Old Line -	1,786	2,185	94	4,065
Ditto ditto, N. and E. -	299	929	10	1,238
Eastern Counties total -	2,085	3,114	104	5,303
Glasgow and Greenock -	99	20	—	119
Glasgow and Ayr -	242	114	12	368
Grand Junction -	3,027	469	15,057	19,553
Liverpool and Manchester -	—	—	5,581	6,770
Manchester and Birmingham -	—	—	—	777
London and Birmingham -	9,827	7,690	2,980	20,497
London and Birmingham total -	12,854	8,159	23,618	49,997
Great North of England -	2,507	—	—	3,204
Great Western -	5,855	7,839	3,066	16,760
South Western -	1,496	2,266	299	4,061
South Eastern -	—	—	—	2,159
Brighton -	401	324	12	737
Manchester and Leeds -	966	1,376	1,539	3,881
Midland -	—	—	—	7,883
Newcastle and Carlisle -	521	938	159	1,618
Newcastle and Darlington -	1,276	199	15	1,615
Newcastle and North Shields -	76	148	6	230
Preston and Wyre -	47	23	31	101
Sheffield and Rotherham -	—	—	—	305
Stockton and Darlington -	80	17	3	305
Ulster -	94	9	394	497
York and North Midland -	1,082	1,848	351	3,293
	30,000	26,440	30,000	102,000

The rates per mile charged are as follows:—

	Cattle. d.	Sheep. d.	Figs. d.
Glasgow and Grenock -	1.85	.18	—
Chester and Birkenhead -	1.75	.12	.33
South Western -	1.75	.20	.50
Preston and Wyre -	1.75	.50	.50
Brighton -	1.64	.21	.36
Hull and Selby -	1.66	.14	.18
Great Western -	1.53	.15	.18
Sheffield and Manchester -	1.50	.12	.12
Eastern Counties (old line) -	1.31	.17	.33
Ditto (N. & E.) -	.98	.20	.40
Midlands -	1.25	.50	.50
Newcastle and North Shields -	1.25	.22	.44
South Eastern -	1.22	.20	.40
London and Birmingham -	1.02	.16	.16
Manchester and Leeds -	.87	.25	.25
Newcastle and Carlisle -	.87	.16	.15
Great North of England -	.80	.16	—
Bristol and Birmingham -	.75	.21	.26
Newcastle and Darlington -	.75	.18	.12
York and North Midland -	.50	.20	.50

The rates for calves are—Newcastle and North Shields, 1d. per mile; Chester and Birkenhead, .42d. ; London and Birmingham, .3d. per mile.

The lowest rates of charge for cattle traffic are on Mr. Hudson's lines; those on the York and North Midland, for beasts, being less than one-third of the maximum charge.

The largest cattle traffics are as follows :—

	Cattle.	Sheep.	Pigs.
London and Birmingham Amalgamation	61,466	229,245	315,989
Great Western	14,058	172,264	52,443
Eastern Counties Amalgamation	20,661	125,564	4,228
Midlands	30,000	120,000	50,000
York and North Midland	15,364	88,143	31,708
Manchester and Leeds	9,686	149,022	27,485
South Western	2,763	53,441	3,089
Great North of England	19,685	20,000	5,000
Newcastle and Carlisle	3,782	37,525	5,116

The gross amounts received range as follows :—

London and Birmingham	-	-	-	-	£50,000
Great Western	-	-	-	-	17,000
Midland, and Bristol and Birmingham	-	-	-	-	9,000
Eastern Counties	-	-	-	-	5,300
South Western	-	-	-	-	4,000
Manchester and Leeds	-	-	-	-	4,000
York and North Midland	-	-	-	-	3,200
Great North of England	-	-	-	-	3,200

The traffic in beasts was in 1844-5, at least 220,000 head, and must be now much larger. It is chiefly carried on upon the London and Birmingham lines for the London market, the charge being little more than 1d. per mile. The Eastern Counties cattle traffic is 20,000 head, charged 1.3d. per mile. Great Western traffic seems to be charged too high, 1.53d. per mile, and does not much exceed 15,000 head. A very large traffic is carried on upon all the lines leading from the northern counties, where the rates are generally very low, sometimes as little as a halfpenny per mile. They amount to about 70,000 head.

It is very evident that the traffic in beasts is far from being carried to its full extent, and that the charges are too high; 1d. per head is certainly a high charge, and the general rate should be lower.

The sheep traffic is chiefly on the Great Western Railway, and this is promoted by a low rate of charge, .15d. per mile, so that nearly 180,000 head are carried on that line. On the Eastern Counties 125,000 head are carried; on the South Western 60,000; and on the London and Birmingham lines 230,000; most of which are supplied to the London market, making in the whole about half a million of sheep brought up to London by railway, out of a gross supply of a million and a half or two millions of sheep yearly sold in Smithfield.

The total sheep traffic is about a million and a quarter head, and this class of traffic is large, because the rates are generally low, but there are still great openings for management.

The pig traffic is almost solely from the ports communicating with Ireland, to which 400,000 of the 550,000 head may be traced, and

which are carried on the London and Birmingham, and Great Western lines at .18d. per head. A great many pigs are, however, brought from Buckinghamshire and the Midland Counties. The charges on the other lines are far too high, and are unsuited to the traffic, so that an inconsiderable number of swine are carried on most of the lines.

The traffic in calves must be one of some importance, as it will pay a good price for transit, but the returns afford no sufficient *data* for an estimate.

The great importance of cattle traffic in a national point of view is, that it saves the loss of meat consequent on driving the animals on the common roads.

The saving by conveyance of cattle on railways cannot be reckoned at less than 5lbs. a quarter for beasts, 2lbs. for sheep, and 2½lbs. for pigs, taking an average. This will give 20lbs. per beast, 8lbs. per sheep, and 10lbs. per pig, representing a gross saving as follows :—

On 220,000 beasts	4,400,000lbs. of beef.
1,250,000 sheep	10,000,000lbs. of mutton.
550,000 swine	5,500,000lbs. of pork.

19,900,000lbs.

forming a total of about twenty millions of pounds of animal food, saved in the course of one year. It must be observed, that this saving is a saving on the net weight of the animal, and is, therefore, more important than if on the gross weight.

Reckoning the average net weight of a beast as one hundred stone, or 800lbs. ; of a sheep as 20lbs. per quarter, or 80lbs. ; and of a pig as 200lbs., the saving would be equivalent to the following numbers :—

5,500 beasts, or 2 per cent.
125,000 sheep, or 10 per cent.
27,500 pigs, or 5 per cent.

Reckoning the whole saving as in sheep of the average net weight of 20lbs. per quarter, or 80lbs., the saving of animal food annually would be equivalent to a quarter of a million of sheep—a number which would supply London with its two millions of inhabitants for about two months, or would furnish animal food to about two hundred thousand people for a year, or total subsistence for about one hundred thousand people for a year.

This calculation is quite independent of the quantities of killed meat and poultry sent up by railway, which would certainly more than double the amount.

Certain it is that, so far from the railway system having caused any diminution of the resources of the country, it has caused a large increase ; for reckoning ten acres per mile as required for a railway, four sheep to an acre, and three thousand miles of railway, this would still leave a saving equivalent to one hundred and thirty thousand sheep per annum, leaving also the labour on thirty thousand acres of land available for other purposes, and increasing the net saving.

Supposing the whole supply of meat for the London market to be driven up by the roads, the loss would not be less than thirty millions of pounds in a year ; and as a comparatively small portion only of this

is as yet conveyed by railway, a large opening for cattle traffic exists, and a consequently large saving to the community.

Already the increase on the net weight of the animals conveyed by railway to the London market is so large, as to be the subject of remark by the dealers in Newgate and Leadenhall markets, while the benefit to the agricultural interests can scarcely be calculated. In the case of a lean beast driven from one district to another, for fattening, there is always a loss on the driving, and this weight has to be made up in the fattening. Again, when the fatted beast is driven to market, a further loss takes place on the driving. As the management of cattle traffic improves, so the benefit to the grazier is more and more becoming felt; as he gets a better command of the markets, he is able to take a momentary advantage of any change in price, can send up to the salesman a greater or less supply, and can himself better superintend the sale. When animals are several days on the road, they always require a greater degree of superintendence, and a large quantity must be sent to meet the expense, and thus the turn of the market is often lost. Further, the loss is not confined to the waste on each individual animal, but in driving from a distance a number of animals always drop, which are generally those in a superior condition, and which are obliged to be sold and slaughtered under most disadvantageous circumstances.

The horse traffic on railways is also very large, and is found of great convenience to dealers and private individuals. Many horses are brought up by railway from the country fairs, but more are conveyed for sporting purposes, this branch of traffic being greatly promoted on some lines by the system of day tickets; so that a horse is often taken down to a hunting country, and returned home after his exercise, or carried to another hunt.

The number conveyed is as follows:—

Bristol and Birmingham	-	-	-	2,879
Chester and Birkenhead	-	-	-	664
Eastern Counties	-	-	-	2,160
Northern and Eastern	-	-	-	2,796
Grand Junction	-	-	-	4,267
Manchester and Birmingham	-	-	-	785
Great North of England	-	-	-	2,709
Great Western	-	-	-	10,504
London and Birmingham	-	-	-	10,749
London and South Western	-	-	-	5,570
London and South Eastern	-	-	-	2,714
London and Brighton	-	-	-	4,303
Manchester and Leeds	-	-	-	1,409
Midlands	-	-	-	9,595
North Union	-	-	-	989
York and North Midland	-	-	-	4,197

The largest traffic in horses is on the following lines:—

London and Birmingham	-	-	-	10,749
Great Western	-	-	-	10,504
Midlands	-	-	-	9,595

London and South Western	-	-	-	5,570
Eastern Counties and Northern and Eastern	-	-	-	4,956
London and Brighton	-	-	-	4,303
Grand Junction	-	-	-	4,267
York and North Midland	-	-	-	4,197

There is also a considerable traffic in dogs on some lines, chiefly for sporting purposes.

The London and Birmingham, in one half year, carried 2,551, for which they received £401; but the returns generally do not afford means of getting at the details of this traffic.

No. 4.—COAL TRAFFIC.

If cattle traffic on railways is the means of saving a large amount of produce, which would otherwise be wasted, coal traffic affords the means of supplying a larger amount of produce to the population than was before supplied. Unless coal could be carried by railway cheaper than by any other conveyance, it would not be so carried; for, however it may be asserted that the railway has superseded other means of communication in the case of passenger traffic, it has not done so with regard to coals, for the canals and common roads remain open. Therefore, as has just been said, unless the railway can carry coal more cheaply, it will not carry it at all. Now, by carrying coal more cheaply, the consumption must necessarily be extended; for the consumption of coal, regulated by the price, very much depends upon the rate of land-carriage, which in some parts of the country carries the price of coal up to forty shillings a ton, the price at the pit's mouth being five shillings or ten shillings. However popular may be the charge of monopoly against railways, certain it is that, with regard to coals, so far from having favoured monopolies, the railways have broken them down. In many country districts, the canals are chiefly in the hands of the coal merchants and wharfingers, who constitute local and family cliques, working the canals for their own benefit, and making a monopoly of the wharfs. Two or three parties will divide among themselves the supply of a town, and if any stranger attempts to come into the trade, they put him down by underselling for a time. Thus, not only are heavy canal charges kept up, but a monopoly price is added, which grievously increases the cost of coal to the poor. The railways have done much to alter this state of affairs, and to reduce the price of coal. In one case, at Wellington, the arrival of a single waggon-load of coal at the Great Western Railway station was a sufficient summons to the local coal-merchants to lower the price five shillings per ton at once, proving that a large population had been subjected for a long time to a heavy and oppressive tax on a most necessary article of life. If food be of importance to mankind, so is warmth in the shape of clothing or fuel; but the value of this is vulgarly apt to be underrated. Indeed, to supply an increased quantity of fuel to the population, is to increase the comforts of the population, and to add to the value of human life. The effects of monopoly in limiting the use of fuel have hitherto been little investigated; but they require to be so, as an essential among the steps to be taken for the improvement of the condition of the people.

Many manufacturing pursuits are totally checked in country districts by the high price of fuel, and the progress of small towns is thus restricted, and the population made dependent on other localities for supplies, the price of which, again, is enhanced by the cost of conveyance. The evil of an insufficient or high-priced supply of fuel for manufacturing purposes is therefore double; first, by towns being deprived of the resources of a local manufacturing population, and next, by being subjected to the payment of a higher price to strangers. What effect an abundant and cheap supply of fuel produces, we know by such examples as the removal of the iron works from Surrey, Sussex, and the southern districts, where wood-fuel formerly abounded, to Staffordshire, South Wales, and the coal countries. The effect of the present monopoly prices of coal is often to prevent ironfoundries, brickfields, potteries, breweries, and many common works from being carried on in parts of the country, although there are large populations to consume the produce.

Wherever an increased supply of coal is brought, the benefit to the population is great, by the better provision of fuel, and by the establishment of such home manufactures as before were kept away, by the inability to produce at such low rates as to suit the markets, and to compete with other wares.

In flat countries, where there is a want of mill-power by water, cheap coal will enable steam-power to be applied, and here again the opportunity is afforded for new branches of manufacture to be established.

The agricultural interests have benefited greatly from these advantages, and must benefit still more as agricultural science advances. At present the result may be felt in cheaper bricks, tiles, sawn timber, ironwork, mill-produce, &c.; but as steam-power is more extensively applied in the south of England, as it is in the Scotch districts, the steam-engine will become as necessary an appurtenance of the corn manufacturer as the barn is now. In those districts of Scotland where fuel is cheap, the steam-engine is employed with advantage to drive the thrashing machine, to pound bones, cut chaff, raise water, grind corn, and turn many of the farm machines. Coals at thirty, five-and-thirty, and forty shillings a ton, afford but poor encouragement to the energetic agriculturist to resort to additional machinery, and he must wait the advent of cheaper fuel. As the consumption of coal extends, the agriculturist also profits by the supply of ashes as manure, and of breeze, or small coal, at a cheap rate, for burning bricks on the London plan.

The coal statistics, like most portions of the returns of the railway department, form not merely a

rudis, indigestaque moles,

but are shamefully defective, as most of the great Companies have not felt themselves called upon to make any returns.

This list includes the London and Birmingham, Great Western, Grand Junction, Eastern Counties, South Western, Edinburgh and Glasgow, Glasgow and Greenock, Hull and Selby, Manchester and Leeds, Manchester and Birmingham, and Lancaster and Preston.

The materials supplied by other lines can, therefore, only be cited to show a minimum of accommodation afforded, and we must estimate the maximum in the manner we best can.

The following shows the gross tonnage of the undermentioned lines in the year beginning 1st July, 1844, and ending 30th June, 1845:—

	Tons.
Arbroath and Forfar - - - - -	12,000
Ardrossan - - - - -	42,144
Ballochney - - - - -	282,622
Bristol and Birmingham - - - - -	70,000
Canterbury and Whitstable - - - - -	13,000
Clarence - - - - -	300,000
Dunfermline - - - - -	28,477
Durham and Sunderland - - - - -	372,714
Edinburgh and Dalkeith - - - - -	118,340
Glasgow and Ayr - - - - -	120,000
Glasgow and Garnkirk - - - - -	1,761,000
Great North of England - - - - -	181,012
Hartlepool - - - - -	796,486
Hayle - - - - -	20,000
Leicester and Swannington - - - - -	178,566
Liverpool and Manchester - - - - -	133,396
Llanelly and Llandilo - - - - -	92,381
London and Croydon - - - - -	6,000
London and South Eastern - - - - -	22,519
London and Brighton - - - - -	30,000
London and South Western - - - - -	4,000
Manchester and Bury - - - - -	49,826
Maryport and Carlisle - - - - -	119,375
Midland - - - - -	313,854
Newcastle and Carlisle - - - - -	205,500
Newcastle and Darlington - - - - -	400,000
Newcastle and North Shields - - - - -	26,936
North Union - - - - -	321,923
Pontop and South Shields - - - - -	662,829
Preston and Wyre - - - - -	21,538
St. Helens and Runcorn Gap - - - - -	229,775
Sheffield and Manchester - - - - -	58,668
Sheffield and Rotherham - - - - -	16,000
Stockton and Darlington - - - - -	900,000
Taff Vale - - - - -	125,986
Ulster - - - - -	807
Whitby and Pickering - - - - -	1,708
Wishaw and Coltness - - - - -	390,240
York and North Midland - - - - -	47,529

These amounts constitute an aggregate of seven millions of tons of coal conveyed by railway in the year 1844-5; but the correct amount cannot be defined on account of the omissions of so many returns, and because large quantities are conveyed over several lines.

The amounts received are as follows:—

Arbroath and Forfar - - - - -	£1,700
Ardrossan - - - - -	2,106
Ballochney - - - - -	3,206
Bristol and Birmingham - - - - -	3,768

	£
Canterbury and Whitstable - - -	1,188
Clarence - - -	20,000
Dunfermline and Charlestown - - -	3,142
Durham and Sunderland - - -	22,712
Edinburgh and Dalkeith - - -	4,800
Glasgow and Ayr - - -	8,000
Glasgow and Garnkirk - - -	7,600
Great North of England - - -	13,079
Hartlepool - - -	32,627
Hayle - - -	2,400
Leicester and Swannington - - -	15,827
Liverpool and Manchester - - -	9,414
Llanelly and Llandilo - - -	6,067
London and Brighton - - -	2,400
London and Croydon - - -	500
Manchester, Bolton, and Bury - - -	8,332
Maryport and Carlisle - - -	7,241
Midland - - -	42,000
Newcastle and Carlisle - - -	19,476
Newcastle and North Shields - - -	1,198
Pontop and South Shields - - -	49,591
Preston and Wyre - - -	4,289
St. Helen's Runcorn Gap - - -	9,762
Sheffield and Manchester - - -	2,447
Sheffield and Rotherham - - -	977
Stockton and Darlington - - -	80,000
Taff Vale - - -	19,939
Ulster - - -	180
Whitby and Pickering - - -	241
Wishaw and Coltness - - -	9,969
York and North Midland - - -	2,419

This constitutes a total of upwards of four hundred thousand pounds, so that the gross total is most probably near six hundred thousand pounds for the sum received by railways on account of the conveyance of coal.

The rates of charge vary very much on the several lines, depending on many circumstances, so that it is impossible to institute an accurate comparison, in some cases the coalowners supplying their own locomotives and waggons, and being charged toll only; in others supplying their waggons only; in others being charged with an additional rent for waggons; and in many cases the Company hauling and supplying waggons.

Rate per mile for toll only, and for total charges:—

	Toll.	Total
	d.	Charges.
		d.
Canterbury and Whitstable - -	-	6.00
Dunfermline and Charlestown - -	-	4.29
Bodmin and Wadebridge - -	-	4.25
Hayle - - -	-	4.20
Dundee and Newtyle - -	-	3.37

	Toll.	Total Charges.
	d.	d.
Maryport and Carlisle - -	1.16	3.33
Arbroath and Forfar - -	-	3.30
Monkland and Kirkintilloch - -	-	3.00
South Western - -	-	3.00
Wishaw and Coltness - -	2.27	2.90
Manchester and Bury - -	-	2.30
London and Croydon - -	2.00	2.25
South Eastern - -	-	2.12
Brighton - -	.25	2.10
Newcastle and Carlisle - -	-	2.00
Leicester and Swannington - -	-	1.57
Llanelly and Llandilo - -	1.00	1.50
Bristol and Birmingham - -	-	1.43
Durham and Sunderland - -	-	1.40
St. Helens and Runcorn - -	.7	1.40
Pontop and South Shields - -	.75	1.30
Garnkirk and Glasgow - -	-	1.27
Newcastle and Darlington - -	-	1.25
Edinburgh and Dalkeith - -	-	1.25
Preston and Wyre - -	-	1.25
Taff Vale - -	.66	1.16
Manchester and Leeds - -	1.00	-
Clarence - -	-	.91
Hartlepool - -	.75	-
York and North Midland - -	-	.75
Great North of England - -	-	.50

The above are not in all cases the average charges, but the maximum charges; as on some lines, a higher rate is charged for going up hill than for going down hill.

The chief coal lines are the following:—

	Tons.	£
Stockton and Darlington - -	900,000	80,000
Pontop and South Shields - -	662,829	49,591
Midland - -	313,854	42,000
Hartlepool - -	796,486	82,627
Durham and Sunderland - -	372,714	22,712
Clarence - -	300,000	20,000
Taff Vale - -	125,986	19,939
Newcastle and Carlisle - -	205,500	19,476
Leicester and Swannington - -	178,566	15,827
Great North of England - -	181,012	18,079
St. Helen's and Runcorn - -	229,775	9,762
North Union - -	321,923	-
Wishaw and Coltness - -	390,240	9,969
Liverpool and Manchester - -	133,396	9,414
Ballochney - -	282,632	3,206
Newcastle and Darlington - -	400,000	-

The coals conveyed by railway from the several fields, and the amounts received, are as follows :—

	Tons.	£
Northumberland and Durham -	3,850,000	260,000
Cumberland - - -	250,000	10,000
Leicester, Nottingham and Derby	616,000	65,000
Lancashire - - -	900,000	55,000
Bristol - - -	50,000	5,000
South Wales - - -	220,000	26,000
Glasgow - - -	760,000	35,000

This traffic is exclusive of the traffic in coke.

INVESTMENT OF CAPITAL; OR, HOW TO LAY OUT MONEY WITH SAFETY AND PROFIT.

*Being a Popular Exposition of the various descriptions of Securities,
with Hints for the Guidance of Capitalists.*

BY G. M. BELL, AUTHOR OF "THE PHILOSOPHY OF JOINT STOCK
BANKING," &c. &c. &c.

INVESTMENTS are so little understood by the majority of the public, that it is a great advantage, when a popular compendium comes before us, drawn up by an able hand. Mr. G. M. Bell, is well known as one of the best writers on banking, as the author of the *Philosophy of Banking*, and other works, and as the editor of the banking newspaper. As a practical joint-stock banker, he has opportunities of acquiring information, which give him a particular insight into the operations and necessities of capital, and make him a trustworthy adviser.

He commences by a definition of capital, which is the more deserving of perusal, as it gives the clearest view of a difficult subject :—

"Capital is either fixed or circulating.

"Fixed capital is that which is invested in the purchase and improvement of land, of machines and instruments of trade, of railroads, buildings, and public works, or any other thing which yields a profit without changing hands and circulating like goods or money.

"Circulating capital is that which is employed in producing, manufacturing, and purchasing goods, in order to sell them again to a profit. Thus, in the case of a merchant who buys and sells goods, and of a banker who borrows and lends money, their capitals are in a constant state of fluctuation, going out and returning again in one form or another.

"The amount of fixed and circulating capital differs in proportion to the nature and extent of the trade and manufactures in which parties engage. Some trades and undertakings require a greater amount of fixed, some a greater amount of circulating, capital than others. Thus in coal works and mines of every description, a large amount must be

invested in labour, before a pit or shaft can be sunk to the coal strata, or a level driven to the ore. A large amount must also be invested in engines and machinery. The same thing may be said with regard to great public undertakings, such as railways; large sums must be invested in the labour of excavating, and in making embankments on the line; in rails, engines, station-houses, and machinery. The fixed capital required in these and such like undertakings infinitely exceeds that required by manufacturers and artificers. Thus a tailor, a shoemaker, a weaver, have very little capital invested in the materials of their trades; nothing, indeed, beyond a few needles, a small supply of leather, benches, lasts, prongs, and weaving frames. A merchant has no machines, nor instruments of trade, except his shop or warehouse; his capital is all circulating; "his means are in supposition." A farmer has capital invested in agricultural implements and cattle. The wages of his labourers, the produce of his farm and stock, are his circulating capital.

"But capital is not only either fixed or circulating. It may be farther distinguished as being either profitable or unprofitable; productive or unproductive.

"Productive capital is that which is invested or employed in such a manner as to yield an annual return or profit to the owner. Thus, capital invested in 3 per cent. consols, or in banks allowing a certain rate of interest per annum, is productive capital. It returns an annual sum to the owner, by which his wealth is so much increased. In this way, parties possessed of money, which they do not themselves employ in trade, may lend it out to others, or invest it in such securities as shall return them a certain per centage on the amount annually. By this means, large numbers of individuals contrive to increase their wealth annually, or to add to their own means of enjoyment.

"Unproductive capital is that which is invested in stocks or speculations that yield no surplus profit to the owner; where, from losses, over-speculation, or mismanagement, the profits may be for a time suspended, or fall short of the expenses; or where both principal and interest may be entirely lost. This has been exemplified in the South Sea scheme, in certain foreign funds, in American state stocks, and in a few joint-stock speculations in our own country in recent years.

"While there are thousands upon thousands of persons in Great Britain depending entirely upon the interest realised from the investment of their capital in lands, houses, and the various stocks and public undertakings now so numerous, there are thousands upon thousands wholly ignorant of the nature of the securities they possess, and of the various sources and modes of investment within their reach. For the information of that numerous class, we shall notice in a simple and perspicuous manner the various descriptions of security upon which money may be invested; the degrees of security presented by each class; and the method to be adopted by the capitalist in making his investment."

In the course of the work Mr. Bell treats succinctly of each class of investment, whether land, stock, or the numerous varieties of joint-stock and commercial securities:—

JOINT-STOCK BANKS.

"Joint-stock banks were first permitted to be established in England in 1826 ; and although there have been several instances of mismanagement, and of heavy failures, among them, attributable partly to the rapidity with which they were formed, and partly to the almost unavoidable introduction of many improper parties into their direction, they are entitled to be considered as presenting a fair field for the advantageous investment of capital.

"A person desirous of becoming a shareholder in a joint-stock bank, will, of course, make it his business to know something of the career and position of the establishment he is invited or inclined to join. The annual publication of accounts and reports to their shareholders by the English joint-stock banks affords the means of forming some judgment of their condition and success ; but as cases have occurred which lead to the conclusion that such periodical statements ought not to be implicitly depended upon, other means of forming an opinion may also be had recourse to—such as the character of the men who form the Board of Directors ; the nature of the business in the locality where the bank is situated ; the knowledge of its past history ; whether its means are adequate to the amount and description of business it is known to transact ; the estimation in which it is held in its own locality ; and the condition of its shares in the market. A bank that is doing a safe business with an adequate capital, and paying a reasonable dividend, will have its shares at a steady premium, and may be looked upon as a safe investment ; but where a bank is found to be paying a large dividend, or even a dividend of 5 per cent. and upwards, while its shares are at a heavy discount, it may safely be inferred that there is something radically wrong in its condition, that it has either made heavy losses, or is doing a bad and unsafe business, or is under bad government. Caution should even be exercised in respect to a bank paying a very high dividend, especially where the shares bear no corresponding premium in the market ; for although this may be the case with several banks of great respectability and of large business, yet banking is a description of business which does not seem to justify the principle of a division of annual profits to the amount of twelve per cent. and upwards. The highest rate of interest paid by any bank in Scotland is eight per cent. ; and this is the case only with one bank, whose shares are at a premium of one hundred and twenty-five per cent. ; while most of the shares of the other Scotch banks bear a high premium in the market.

"The formation of new Joint Stock Banks, where there is a fair field for the extension of the system, is a very legitimate, and may prove a very profitable, source for the investment of capital ; but care should be taken that the parties who are to be entrusted with the administration of the affairs are men of wealth and respectability.

"It is the practice of the Joint Stock Banks to allow interest upon money lodged in their hands, either in deposit for a period of time, or on the daily balance of current accounts. It is the interest of every tradesman, as well as of every man of property, to keep an account with a banker. By so doing his money is lodged in a place of security, and

he is allowed a certain rate of interest for it, according to the value of money at the time. The banker will, indeed, not only take care of the money, but also of any deeds or other documents that may be committed to his charge by his customers.

"In lodging money with a bank, it is desirable to choose one that has acquired some character and standing, and not to prefer one bank to another simply because it allows a higher rate of interest. The bank that allows the highest rate of interest is not always the most successful, or the best managed. Bankers in general do not wish to be troubled with transactions under £10, which is the lowest sum they are usually inclined to receive, or pay on an account, or deposit. The deposits of sums of large amount, say from £2,000 and upwards, is usually matter of arrangement, the banker agreeing to allow a specified rate of interest, and the depositor not to withdraw the money without a certain number of days' notice. The highest rate of interest usually allowed by banks in the provinces is three per cent.

"For persons whose transactions are under £10, such junior clerks, labourers, domestic servants, and others, the savings' banks, of which there is generally one or more in every town, present a perfectly safe and convenient place of investment. The government allows interest on the deposits of the savings' banks at the rate of £3 5s. per cent. per annum. The interest paid to the depositors by the savings' banks varies from £2 15s. to £3 0s. 10d. It is to be observed, however, that a person cannot deposit more than £30 in any one year, nor more than £150 altogether; that no interest is paid for the fractional part of a month, nor can any money be drawn out without giving notice beforehand.

"The Bank of England allows no interest upon deposits, or on the daily balance of accounts, either in London or at its branches in the country; neither do the private bankers in London allow any interest.

"Besides the Joint Stock Banks in England, Scotland, and Ireland, which all, more or less, present a fair field for the investment of capital, there are banks in London for the purpose of transacting business in the colonies of Great Britain—such as the Bank of Australasia, the Bank of Ceylon, the Bank of British North America, and numerous others, some of which have been eminently successful, and seem highly deserving of public confidence."

INSURANCE COMPANIES.

"Insurance and assurance are terms of the same import; but it has now become customary to apply the latter term to insurance of life—as life-assurance; and the former to insurance against fire and other losses, as fire-insurance, marine-insurance.

"Insurance companies are of three distinct classes,—life-assurance, fire-insurance, and marine-insurance. The most profitable of these have been the companies for life-assurance. They may be considered to have more certain data to proceed upon than either of the other two. The probability of the duration of human life in this country at any given period can be calculated with more certainty than the probability of the security of a house from fire, or of a ship from injury or destruction.

"The principle of life-assurance proceeds upon a calculation of what sum of money annually paid by a person of a given age during his lifetime will be equivalent to a certain sum assured to be paid by the assurance company at his death. Where ordinary judgment is exercised in the selection of lives, and the scale of rates is adjusted with a proper regard to the class of lives to be assured, Joint Stock Companies for life-assurance cannot fail, under proper management, to be safe and profitable undertakings. This is sufficiently proved by the rapidity with which these institutions have increased during the last twenty years, and the large amount of money which many of them have realised. Their rapid increase and active competition have, however, led in recent years to great variations in the rates of assurance as well as in the class of lives selected. Many of the new companies assure lives which older and more prudent establishments would reject. There are, in fact, companies who expressly undertake to assure diseased lives. There are about ninety societies in the United Kingdom for assurance of lives. They are distinguished into three classes—mutual, proprietary, and mixed. In the first the members are mutual assurers, and the whole of the profits realised are divided among the holders of the original stock; in the second the assured do not participate in the profits, but the whole of the profits are divided among all the members; in the third the principles of the two first are combined. A subscribed capital and body of proprietors being interposed between the assured and loss, the proprietors appropriate a portion of the profits to themselves, and divide the rest among the assured. In the mixed companies a larger sum may generally be calculated upon as payable at the death of the assured than in the proprietary companies. Each of them, however, offer peculiar advantages, which may suit different parties in particular circumstances. In making a comparison of the condition of different companies, it is necessary to keep these distinctions in view. Those who become partners or shareholders in new companies have the best chance of realising profit from investing in these undertakings; but the field for enterprises of this nature is now considerably narrowed, and therefore the next best step is to select such old companies as are known to be well conducted, to possess an improving business, and the value of whose stock is rising in the market.

"Companies for the insurance of houses and other buildings from fire are considered less profitable than those for life-assurance. Some of the latter companies also insure against fire, and they are usually believed to be more successful than those which insure against fire alone. The reason probably is, that the large profits realised from the life department of their business, enables them to bear up more strongly against the losses sustained in the fire department. The heavy losses which many offices have met with in the fire department have had the effect of depreciating the value of their stock to a serious extent, and some of them have found it prudent to abandon the fire department altogether. The very low rates at which insurances against fire may be effected, the small premiums to which competition has reduced the charges of Fire Insurance Companies, make it necessary that a company should have a widely extended business, and a large amount of insurance, in order to realise an annual income adequate to

the risk they undertake. A Fire Insurance Company may have a very extensive business, and may be singularly fortunate in escaping for a long series of years any call upon its funds, yet it may lose by one fire in a single night the whole profits realised during a long course of years. A succession of fires may within a short period prove entirely ruinous to the concern. But, notwithstanding the tremendous losses to which they are exposed, Fire Insurance Companies, by obtaining a large business, and spreading their risks over a great extent of property, are believed to be upon the whole profitable undertakings. It is only large companies, however, with ample resources, that can reasonably be expected to prove successful. They are not an investment that can be considered desirable for a small capitalist.

"Marine insurance is a description of risk, perhaps even greater than that of fire insurance. In the latter case the element of destruction gives always some notice of its approach, and is more or less under our control, but no human arm nor sagacity can prevent or arrest, or control a storm at sea. Winds and waves and tides, leaving other casualties out of view, are entirely beyond human influence.

"The general principle upon which Marine Insurance Companies are conducted is to distribute their risks over as great a number of vessels as possible so as to increase the chances of escape from loss; that is, not to insure a large sum upon any one vessel. Thus it will usually be found that if a vessel be insured at all, she is in two or three different clubs or insurance companies, whose aggregate subscriptions of risk make up the value of vessel and cargo, or such proportion as the owner or merchant deems it necessary to insure. Marine Insurance Companies are found principally in large cities and seaport towns. The principal establishment for this purpose in London is Lloyd's, which has agents in almost every seaport in the world, and is constantly supplied through them with the most accurate information as to the character and condition of almost every vessel in our merchant service. Persons in the practice of insuring vessels will seldom hazard any large sum upon one ship or cargo; few will risk as much as £500 upon a single policy. The usual average risk of each underwriter is about £200 on one vessel cargo. In this way a shipment supposed to be worth £2,000 will probably be secured by a policy bearing the names of ten different underwriters, each responsible in case of loss for the amount he has under-written, say £200. Any person may become an underwriter or ship-insurer. The risk is of course very great, but where proper judgment is exercised as to the description of the vessel, the skill and character of the master, the voyage to be undertaken, and the season of the year, money may be staked to some profit. The rates of premium charged by underwriters, vary according to these circumstances. Such risks, however, ought not to be undertaken, except by persons possessing considerable knowledge of nautical affairs."

In the following recapitulation, Mr. Bell sums up his views with regard to the various classes of securities:—

GENERAL SUMMARY.

"After carefully considering the various modes of investment described in the preceding pages, it will be for the capitalist to

determine what is most likely to suit his own particular views, and upon what descriptions of security he would prefer to venture the money at his disposal. He will perceive that there are a great variety of ways in which money may be lost and won, and it is possible that he may even be aware of some which have not been enumerated in this work, or upon which its limits have rendered it impossible to dwell. It is believed, however, that whether his inclination be to speculate, to play at hazard with the money which his own industry has realised, or which has been bequeathed to him by the affection of relations or the bounty of friends, or to place it in security, so that he may derive a certain and fixed income from its employment, he will find in the preceding pages some useful and perhaps valuable information.

"To assist him still further, we shall add a few hints, which will probably be considered an appropriate conclusion to this work:—

"1. Those who desire to obtain the highest rate of interest without much risk ought to select the best of the public companies—such as banks, insurance companies, old railway companies, and other established undertakings of high character.

"2. Those who would prefer a high rate of interest, and are willing to run the risk that securities yielding high rates generally involve, ought to invest in mines, in ships, and in new railway companies; they may stake their money upon scrip, and upon new shares, where there is a prospect of their being run up to a high premium.

"3. Those who are not in a position to invest their money for any lengthened period, but may require to call it up suddenly, or within a short time, should invest in the funds, or deposit it with a bank that allows interest.

"4. Those who desire to obtain a steady and uniform rate of interest, and to be secure of their capital in a few years, may invest in railway bonds. In doing this they will consult their own advantage in selecting the bonds of such lines of railway as are well managed, and possess a good and improving traffic.

"5. Those who are willing to be content with a low rate of interest, and to be entirely secure from risk, ought to invest in exchequer bills, India bonds, or landed property.

"6. It can scarcely be deemed advisable to make permanent investments to a large amount, at periods when there is any commercial or political excitement in the country. When the position of commercial and political affairs is unsettled, when the public mind is agitated with regard to passing events, the value of securities of every description is liable to be more or less affected. The anticipation, as well as the realization of change, will often produce great variations in the prices of the funds, and other public securities. The late railway excitement had the effect of running up prices to a most unreasonable extent. The depression that followed, while it was in some measure only the natural result of an inflated and unsound system, strongly exhibited the danger of embarking in new enterprises, involving responsibilities comparatively unknown. Nor has the injurious effect of that excitement been yet experienced in all its deformity. Many persons are under the impression that the prices of railway shares must rally; and a strong feeling that this will soon be witnessed is extensively

prevalent. There is every probability, however that such parties will find they have been under 'a strong delusion.' The value of the shares in good lines already in operation, or in course of construction, may improve, and perhaps in some cases considerably; but it will only be after the rubbish lines have been swept out, and after 'speculations for a wind up' have begun to cease.

"Persons who have money in hand ought not at such periods to invest it hastily in doubtful securities, or in such as are likely to be affected by the circumstances to which we have alluded. They ought to keep it at command so as be able to take advantage of a fall in those securities which present a favourable opportunity of investing to some profit. It will be found to be the general practice of experienced capitalists to lend their money only upon the best securities, and for the shortest possible periods, when there is any cause of disquietude in commercial or political affairs, or in the circumstances of the country.

"7. Persons engaged in trade who have not more capital than is necessary to conduct their trade, who have, in fact, no surplus money at their disposal, ought to be cautious of entering into money speculations of any kind, of making investments in railways, or any other schemes or securities of a doubtful and hazardous description. The *Gazette* has recently been filled with the names of tradesmen who were doing well, and might have continued to do well, by attending to their own proper business; but who from a mistaken sense of their position, by embarking in thoughtless speculation, have involved their families and themselves in misery and ruin. Tradesmen without spare capital ought never to embark in such schemes. Those parties only can be justified in doing so who can afford to lose money, and are prepared to meet the engagements for which they become liable."

RAILWAYS IN INDIA.

THE DIRECT BOMBAY AND MADRAS RAILWAY ALLOTMENTS.

It is well known we are favourers of Railways in India, having been the first among the railway press to take up the subject, when Mr. Macdonald Stephenson and Mr. Chapman were advocating their great undertakings. We have taken our ground with a full knowledge of all the objections which stand in the way, and with no views but that of acting as true counsellors of the public. We may have appeared sanguine sometimes, even to our Indo-English friends; but we are prepared to stand by our opinions. These were not taken up lightly, they were not adopted on the spur of the moment, or founded on narrow views. It is quite true we have no Indian experience to guide us, but we have that which is much better, a knowledge of the working of the railway system in countries possessing even less advantages than India. We do not undervalue that experience in its just application, and we would not trench upon its province.

We do not pretend to set ourselves up as arbiters on local points, but we pretend to be well able to appreciate the applicability of the railway system to India.

We are not about to talk of the great resources of India. We have done that before; but we shall take the opportunity in relevance to the special task we have before us, of considering some general points relating to railways in India. The chief of these is—will railways pay? We say they will, and we trust we do not say so presumptuously. We are perfectly well aware of what is said of scantiness of population, of poverty of population, of listlessness of population, but still we are prepared to press the rightness of our own opinion. It is perhaps not unnatural that critics should take English railway measure of Indian enterprise, but assuredly it is quite wrong. In England we have double rails, everlasting works, expensive station accommodation, luxurious carriages, a vast plant, and a high rate of speed. All these things hinge one upon another, and the cost of railway construction and railway maintenance is in the most prominent instances, carried to an enormous extent; though there are not wanting examples in this country of very cheap lines with a single set of rails, steep gradients, timber bridges, no police, no stations, and a low speed. Everything, indeed, must be adapted to the circumstances of the district or country for which conveyance is to be provided. It is no proof that because we have people who can afford to pay for express trains and five-and-thirty miles an hour, that we are forced to provide similar accommodation everywhere for those who can not pay for it. Nothing, indeed, varies so much as the cost of railway construction, from the tramway with horse traction, made at a thousand pounds a mile, to the brick viaduct worked with locomotives or the rope, and costing two hundred thousand pounds a mile.

A railway may be made very cheap or very dear, but the scale depends on the extent of accommodation. Where a railway, as in the south of England, not merely stands in the place of the turnpike road, but provides carrying plant, tractive power, booking clerks, carriers, warehouses, police, and what elsewhere constitute separate establishments, it is not at all wonderful if the scale of expenditure extends accordingly; and these facts should be borne in mind in instituting any comparison. English expenditure is not required everywhere, because English traffic is not to be found everywhere—where it is, it must be similarly accommodated.

In Belgium, it is well known, a lower scale of railway accommodation is afforded, and the cost of construction is therefore reduced accordingly; though the evident tendency is, with the development of traffic consequent on the working of railways, to provide a much greater degree of accommodation, and to extend the system.

In the United States, however, we find the most practical example in our present pursuit, and it certainly confirms, in every respect, the propriety of railway enterprise in India. In the United States, the population is very much more scanty than in the districts of India proposed to be traversed by the railway, while the materials for goods traffic are less abundant and less capable of paying the expense of railway transit. The railway system in America is cheap, because it is simple. Land costs little; and although labour is dear, and rails have

to be brought from England, the works are light. Gradients are little regarded, so that a line can be made. The bridges and works of art are not merely of the cheapest, but it may be added, of the slightest description. Lines are left open, unfenced, and without police; the station accommodation is simple, the trains few, often only once or twice a day, locomotives fed with wood, and the speed low. Under all these circumstances, railways in the United States are found not only advantageous, but productive; and they are being daily carried further, to an extent scarcely conceived in this country, and far beyond our own system. We have, it is true, a weightier traffic, but for length of line, the United States beat us.

Railways in India will not be subjected to many idle and costly items of expense which here very much aggravate the outlay. There will not be in India the vast charges of severe parliamentary contests, and futile standing orders; there will not be oppressive law costs, and the land will be obtained for roads and stations at very low rates; and, indeed, the cost will only be considerable where the traffic is the greater. We know that attempts have been made in some quarters to deter the public by representations that most costly works will be necessary to meet the vicissitudes of the seasons and the sudden and extensive floods consequent thereon. That there will be expensive works at some points is certain, but that the works generally will be so is an assumption entirely unsupported by facts.

In India labour is cheap and abundant, and materials will, in most cases, be readily obtained. As to rails, there will be no greater difficulty in sending them hence to India than to the United States; and with regard to fuel for locomotives, India is not worse off than the United States, for it possesses bituminous coal and wood; and as the railway system extends in India, so will there be greater facilities for the conveyance of coke and other fuel from the seaboard to the inland provinces. Station accommodation will, in the first instance, be on a restricted scale, neither will those great establishments of police and porters be required which are maintained in this country, more from deference to public opinion than from real want of them. The trains would, no doubt, be very few in number, and the locomotive plant on a small scale; while the speed would, most probably, not exceed fifteen miles an hour on the ordinary trains. As lighter locomotives would be used and a lower speed, so lighter rails would be required; and, indeed, in every respect the establishment of railways in India would be so much reduced, that the cost need not exceed £3,000 or £4,000 per mile, while every item of working expenses except fuel would be low. Maintenance of way would be less burdensome on such lines than on our own highly-worked lines; there would be no poor rates, police would be few, repairs of engines less in extent, and the general scale of wages low.

Having provided for the working expenses, it only remains to find a traffic, and where the prime cost and working expenses are low the traffic need not be large. Indeed, to get 5 per cent. upon the Direct Bombay and Madras Railway, which is of the enormous length of 716 miles, and which would appear to be almost hopeless upon English ideas, a gross traffic of less than £500 per mile is enough, while the gross traffic on the London and Birmingham is £7000 per mile. So far from there

being any rational ground of doubt whether railways in India will pay, the difficulty would be so to manage as to prevent them from paying. To realise a gross traffic of £350,000 a year from a population of thirty millions, and from fertile districts, is a problem at which no railway statist would hesitate, and which certainly would not require the high-paid services of a Pare or a Humphrey Brown. Indeed, in their hands, and with their skill in ascertaining the available traffic, a high range of profit would be shown as the result, and certainly a 10 per cent. dividend, which £700,000 a year would pay, is not beyond the bounds of reasonable expectation.

If we have anywhere found a barren field for our exertions it assuredly has not been in India, for every enterprise in which we have engaged there has succeeded, and has produced great results for the home country and for that. Whenever we have undertaken to develop the resources of India we have been successful; whether the object has been indigo, opium, sugar, or cotton, great branches of trade have been created, and the strongest encouragement has been afforded to the extension of legitimate enterprise. This, however, is no experience of to-day merely; it is a fact which the long annals of India attest. Under whatever government, when the resources and the communications of the country have been attended to, it has prospered; it is no hungry thankless field, which exhausts the purse and spirits of the cultivator, and makes no return, but it always encourages and rewards perseverance. Let those who would insinuate that the character of India and of the Hindoos is unchangeable and untractable meditate on a fact, which the hourly records of our custom-houses confirm. India is at the present moment under the influence of improvement like England; the mass is great, the leaven is small, but the leaven is working.

The introduction of railways will do more for India than anything else, because they will constitute an engine of amazing social influence, which we have no other means of producing. Human life and human energy are cut short by the climate of India, but machinery will act independently of climate, and the machinery of railways will give that impulse to India which we should in vain expect from European exertion. Those who have witnessed the moral influence of railways among ourselves know that it is great; but in Belgium it has been found still greater, and in India it will be felt most of all, because there, from the low point at which it will begin to act, it will have the greater scope. Not only will railways produce their immediate effect upon the population of India, but they will act still more powerfully indirectly, by opening up markets of consumption which will give a stimulus to those who not merely may never travel on a railway, but may never see one.

The economy of production will be greatly, materially, and beneficially affected in India. If in England, as we have shown elsewhere in our present number, the effect of railway consumption is to produce a great economy, how sensibly will it be felt in India! At the present time, abundant resources are to be found in one district of India and famine in another, while no interchange of productions can take place: while, from the defective modes of transit, great waste ensues when goods are put in motion. We have shown that, on the cattle traffic of England, the saving of animal food effected is equivalent to

a quarter of a million of sheep in a year, while the consumption of coals has been vastly extended. We, however, live in a country having the sea always near, with good natural water-channels, and with highly improved roads, in which we have greatly the advantage of India. A country so vast, almost a continent, has the greatest varieties of soils and productions—sugar flourishes in one district, cotton in another; rice abounds in its congenial soil; but the facility of interchange is so much checked, that the total of production is limited by the local limitation. Sugar may be grown to rot, cotton till there are no hands to gather it, and grain may be thrown to the beasts for want of men to consume it; and yet while each of these facts is repeated individually, there is no remedy. Sugar and cotton cannot be exchanged with the grower of rice; the abundant harvest of one land cannot be carried to stay the famine of another. Many articles of food are rendered comparatively worthless; lean cattle cannot be driven many hundreds of miles, perhaps through deserts, to be fattened in the low lands; the fat cattle cannot in such a climate be conveyed to a distant market. Fish perishes before it can be taken out of sight of the coast, and hundreds of miles in the interior it is known only by name.

The absolute necessity which exists of obtaining particular articles from individual localities aggravates this state of affairs. Salt must be brought from the seacoast; coal and minerals from a distance; large timber from the site suitable for its growth. Under the climate of India the means of animal transit are so much limited, as still further to aggravate the difficulty and cost of conveyance. Thus, the introduction of machine power is a positive addition to the resources of the country.

Whatever doubts sage Indo-Englishmen may start, as to whether Brahmins and Pariahs will travel together, or whether natives will travel at all, sugar and cotton will certainly travel, if they can do so cheaply. For our own parts, we have little faith in moral obstacles where steam is in the case; for steam is the best means of removing them. Take a recent example in Turkey—Turks are certainly as difficult to deal with as Hindoos, but even Turks may be overcome. When steamboats first ran on the Black Sea, no Turks would venture in the smoke ships, but they preferred the craziest and most untrustworthy craft in the world. The Armenians showed the way—in time the Turks saw and felt the advantage, cheapness, and safety of steamboat travelling; and now there are, instead of one company, three steamboat companies on the Black Sea: one owned by English, one by Armenians, and one by Turks. So will it be in India. Show the way, and in the end the resources of India will themselves find the means of carrying out to completion the railway system.

This, it may be observed incidentally, is a point which should not be forgotten in looking forward to the progress of railways in India. India will not solely depend on this country; but the treasures of India will be applied in a beneficial way, instead of being hoarded up by the native courts, or applied in disadvantageous and unprofitable branches of commerce.

Goods, we have observed, will certainly travel by railway in India, and this is the chief point in considering Indian railway traffic. We

do not care about being told, that we shall have only a few hundred Europeans and a restricted number of natives; for we have the best assurance, that there is such an extent of goods traffic as will pay. The present limit to the European market for Indian sugar is the limit of supply. The supply is increasing; but it is capable of being increased indefinitely, and it will be increased largely when railways open up the interior districts. So with cotton, and so with many articles of production to which we shall subsequently refer.

The Direct Bombay and Madras Railway now claims our attention, for we have only given a cursory allusion to it in a preceding number. It is, as its name expresses, a direct railway between Bombay and Madras, having a length of 716 miles. The chief country traversed is the fertile one of Mysore, a dependency of the English empire, but many minor kingdoms are passed through. As we have mentioned before, the population on the route is about thirty millions, while the number of places accommodated is thirty first-rate cities, and between four hundred and five hundred towns.

Many of these places are of considerable importance, and are distinguished either for their trade, or as military stations. We should observe, that, at the Madras end, a junction is made with the Madras Railway, which forms the continuation to Madras. There are also junctions with the proposed Madras, Nellore, and Arcot Railway, and with the Madras, Sadras, and Pondicherry Railway. The towns accommodated include Poonah, Sattara, Kolapoor, Meeruj, Taloor, Darwar, Bangalore, and Arcot; besides the terminal cities of Bombay and Madras. In the vicinity of the route are Goa, Cuddapah, Pondicherry, Seringapatam, and Mysore; some of which will be brought into connection by railway.

The produce of the country is cotton, coffee, opium, sugar, tobacco, silk, senna, gum, dyewoods, cassia, hides, furs, lace, saltpetre, betelnut, spices, firewood, charcoal, coal, corn, rice, indigo, &c. The imports include English cotton and other manufactures, salt, ice, fish, minerals, &c. Many of the exports are now conveyed five hundred miles for shipment at Bombay; and cotton is conveyed this distance at the rate of ten miles a day on the backs of oxen. The cost of conveyance is thus run up to from £14 to £20 per ton; whereas, by railway at 2d. per ton per mile, the cost would be only £4 3s. 4d.

The result necessarily is, that the grower loses a considerable part of the sale price, and that he has less inducement to produce. Cotton, sugar, coffee, and silk are articles in particular, which it is most desirable should be brought into the European market, and great efforts have accordingly been made by the Indian government with a view to the improvement of the cultivation. A main thing, however, certainly is to reduce the expense of transit, and it is clear that articles such as those we have enumerated, can afford a considerable revenue for transit.

The distance by sea between Bombay and Madras is so great, and particularly during the south western monsoon, that the superiority of a direct land conveyance cannot be denied, and this alone will afford a great source of revenue to a railway company.

We say nothing now about the military and government traffic, for that is a point pretty well understood. The long marches are parti-

cularly destructive to European troops in India ; while the want of facilities of communication requires a larger local military force, and prevents the government from economising its reserves. No one has a greater interest in railways than the government of India ; but that they will go the right way to work, we have not much faith, and therefore we the more strongly support private companies.

In its present state, the Direct Bombay and Madras Railway is not a great affair, for the deposit is limited to 5s. per share, until a more advanced stage ; while the total number of shares for disposal in this country, out of a total of 90,000, is not relatively large. The whole capital proposed is four millions and a half ; and that seems to us sufficient.

With regard to the engineering character of the line, it would be madness to offer an opinion with a line of such a length. Indeed, we are not called upon to give any opinion, for the venture is so small on the express ground that the surveys have to be made. It is stated, that, from local information, no difficulties are apprehended ; and, as to the general propriety of the undertaking, that, we think, may be safely left to the guarantee of the great names which give their countenance and support to it.

One striking point in the prospectus is a guarantee, that allottees will not be considered responsible, should they hereafter decline to pay the deposits required at the time specified in the letters of allotment. We have so recently* expressed our objection to the dishonest attempts to make allottees liable, that it is needless to say, the conduct of the managers of the Direct Bombay and Madras Railway meets with our approbation. Parties in other cases become provisional committeemen with the very justifiable motive of taking as many shares as possible if the undertaking turns out a good one, and as few as possible if it turns out badly, and for this advantage they run the chance, in case of absolute failure, of having to pay the preliminary expenses. If the shares go to a premium, the provisional committeeman takes his allotment of two or three hundred shares, pockets his money, forfeits the shares of those who do not pay up, and never thinks of forcing defaulting allottees to take their shares. The public, however, will never submit where a party has all the chances in his favour, that he should, in cases of ill success, turn round upon the allottees, and force them to meet his responsibilities.

With regard to the plea which has been raised by provisional committeemen that they incurred expenses upon the faith of the applicants for shares, it is quite untenable, for if we could excuse the ignorance shown in such a plea, we cannot excuse its dishonesty. A considerable part of the expenses are always incurred before any applications for shares are received at all, certainly before the applications can be investigated ; and how committeemen can have the audacity to put forward such a plea we can scarcely conceive.

We have always deprecated these invasions of established practice and principle, because we have foreseen their evil-working. If applicants for shares are to be at the mercy of projectors, assuredly respectable parties would never apply for shares, while a new line of swindling

would be opened by parties starting bubbles with the single view of getting the expenses from applicants for shares. It became necessary to establish a new test of the good faith and respectability of projected companies, and the Direct Bombay and Madras Railway have shown the way. By giving a distinct pledge that they do not consider allottees liable, they have given a guarantee for their own economy and their own means, and have thus, no doubt, established the groundwork of their undertaking.

H. C.

ON PREVENTING ACCIDENTS IN MINES.

By R. RETTIE, C.E.

INVENTOR OF THE NEW "SIGNALS OF DISTRESS" AT NIGHT, PREVENTING
"COLLISION AT SEA," AND NEW "TIDAL HARBOUR LIGHT," ETC.

(Continued from page 368.)

SINCE my last communication, it is with extreme pleasure I have noticed the introduction of a bill by Lord Campbell, assisted by Lord Brougham and others, by which we may anticipate the greatest blessings to the poor miner and his family, and to the labouring classes generally. A measure which will soon bring about a new era of reform, as proprietors will now run the risk, if by carelessness others should cause the death or injury of those under their care. Let the lordly proprietor of the mines, or the selfish commoner beware! There is now a penalty for neglecting those measures necessary for the safe conducting of their mining operations; and let them remember that the anomalies of our English laws are at last repealed—laws which have too often shocked our feelings at their absurdity—and the indifference of those who had the power, but would not exert themselves as they ought in abrogating them many years ago—"That you might punish with severity the breaking of a man's leg, but you might kill him outright, and you would escape scot free!" This humane measure once passed, and all will rejoice, and heartily do we wish it every success; and these noblemen have left a monument which will be remembered even after they have passed away from this present active life, and the fruits of which will be found to render happy the home of the widow and fatherless. Nor is it to mining alone that this noble and philanthropic bill applies. As it will come home to the railways in all their multifarious departments, and to a numerous class of labourers, where no satisfactory redress in case of accidents could ever be obtained before, which too often has been experienced to their loss, and by rendering them useless to themselves and families.

Many of the accidents of the mines, as has been pointed out already, arise solely from gross carelessness; and I am happy to see that in setting an example, Scotland has been the first who, by a jury, has awarded damages to the extent of £400, for using improper machinery at the pit, whereby a husband was killed. Much was done to invalidate the evidence brought for the

widow; but the jury saw that the case was simple and plain, and awarded justly, for the evidence was too true to be doubted, and this shows what good will be derived from the passing of this valuable enactment.

That miners are liable to many, various, and complicated accidents whereby life may be shortened and, at all events, rendered useless as regards manual labour under ground; still many of them may be entirely saved—yet we see the miner heedlessly using a common candle, without any shield or safeguard, and we hear that some eight or ten miners are blown to atoms by such reckless folly. Yet how comes it that the proprietors' oversman does not see that all those things are essential to their safety, and that candles ought not on any pretence to be allowed or any lights uncovered, on any pretence? Indeed lights in mines ought always to be locked up by the oversman. There is no excuse—it can be done—it must be done, else look at the penalty proprietors will now run. That a new system will be required, as regards lights and lighting, is self-evident; or else those accidents, which of late have been so numerous, will assuredly fall upon the mine-owner. That the present system of lighting and ventilating of mines has been found hitherto grossly deficient, in every respect, no one can deny.

That there has not been the least attention paid to this by proprietors, or their servants, is also too true; and that, as long as this is allowed to go on, sending out ores, coals, &c., at the risk and cost of many valuable lives annually, nay, weekly. Still, have they ever asked how this can be prevented? Do they call in the aid of those who have the ability to assist or recommend? They neither care nor wish. They get the gold, but forget the sacrifice of human life, which by indifference they continue to perpetrate.

Mines must be lighted up, to be perfectly safe, in a very different way from the present, giving safety, speed, and even rendering ventilation more complete; also, enabling the miner to perform his work in an uninterrupted manner, and, at the same time, giving him more confidence during the operations of his labour. The plan proposed is, by altering the form and situation of the lamps, and giving a greater brilliancy of light, by keeping it also free from running into contact from the strata of carbonic gas, which generally prove so fatal to human life. Also, by reflecting that light in such a manner, so that there is a greater body of light thrown upon the work, without the least trouble or annoyance to the miner. In fact, a series of permanent lights ought to be fixed at various points of the workings; and, I assure you, that it is of the greatest importance, that this should be done, for many reasons. The following will show the way in which I suggest:—

The lamp being fixed upon the ground or floor of the pit, supported on three iron legs, under which there is a grating or gauze, by which the air is allowed to enter at all times. But the gauze prevents any thing further than the vital atmosphere to enter, and that by the control of the mechanical arrangement. The burners are so arranged before the reflectors, that the greatest quantity of light is thrown forward and upon the roof of the mine, while the gas, which from the lightness of it generally, is suspended near the roof, can never enter

the lamp or cause the risk of explosion. I cannot for a moment doubt but this arrangement will be found to give general satisfaction, and also ensure the greatest safety to the mine, as well as secure the safety of the miners. There are many plans may be adopted, to abate, if not to entirely do away with many of those accidents of which the carelessness of the present system of working is alone the cause ; using candles and unprotected lights, such as at Bilston, how can it be otherwise when parties will be so fool-hardy ? Can it be expected that he who would put into a cask of gunpowder a red-hot poker, should escape destruction ? How does it differ when they rush with a light into the midst of an atmosphere so full of an explosive mixture that it is impossible to escape ? Are they not to blame ? The miner thinks not, cares not ! But it is far different with the owner ; he ought to be better informed. He ought to say,—“I must prevent this. I will have lights which are so constructed that they cannot open or take it into the danner, and which will give safety in place of destruction.” And therefore, as they are reaping the profit, let them provide ample and sufficient means of preventing these direful accidents, which daily shock the feelings of the public, and make one shudder at the consequences.

RAILWAY REFORM AND RAILWAY RELIEF.

AFTER all the clamour of the last few months, the leading articles, the pamphlets, the debates, the alarm, the hopes and fears—after Parliament has stept out of its course, and the government concocted a panacea—the whole has come to nothing ; and now the complaint is, that the companies are not broken up fast enough, or (as some say) at all. The most striking inference which forces itself upon us, in reference to this matter, is, that the breaking up or panic party, however noisy, was never strong, and that consequently the legislature has been entrapped into lending itself to the promotion of jobbery, and with the additional disgrace of its measures being inefficacious. Notwithstanding the loud outcry which was raised, we always contended that neither sound principle nor public justice countenanced the proposed legislation, and that it was opposed to the interests and wishes of the mass. The result has proved it. There was a powerful agitation, the *Times* promoted it, fools countenanced it, and knaves stepped forward to reap the harvest ; but the majority of shareholders, so far from sympathising with the agitation, have felt its influence too severely, and deprecated it and its promoters in no moderate terms.

Nothing was more plausible than the cry of relief for parties who wished to withdraw, nothing was more unjust than the claim ; but the benevolent public took it up, and the press, as exponents of public feeling, came forward as champions. Parties, it was said, found themselves involved in engagements which were ruinous to them ; they wished to retire from the companies, to have their money back ; and

it was asserted to be for the national interest, and their own interest, that they should be allowed and assisted so to do. The first question which always occurred to us was, "What right have these parties to the relief they seek?" and we could not find they had any. They had made engagements with their eyes open, and they could have no right to be released from those engagements to the detriment and at the cost of others. As to the plea of favour or mercy, we could see no ground for that; people engage in what they consider gambling speculations, with the view to be gamblers; and because they are losers instead of gainers, they apply for legislative relief against the presumed effects of their vicious propensities. We hold that it was contrary to public morals to release such parties, for that, on the other hand, so far from being released from their engagements, they should have been held to them, that they might undergo the punishment of their vices. Railway investments do not necessarily involve gambling, but if parties choose to treat them as vehicles for gambling, nothing can be more just than that such parties should be punished; and justice would be best met by Acts of Parliaments for promoting their punishment, rather than by Acts of Parliament for its mitigation.

When the matter comes to be thought of coolly, nothing will be found more shameful than the conduct of the breaking-up party and their organs, who, without any justice, or shadow of justice on their side, and with only the plausibility consequent upon gross misrepresentation, made a most serious attack upon the property of others. A lot of gamblers get into the railway market, carry on their gambling pursuits, are ill-favoured by fortune, and then they style themselves martyrs, and seek to be relieved and compensated at the expense of the honest men. The claimants for relief may be justly stigmatised as gamblers, and may be classed in two divisions: those who went into what they considered the railway lottery, and drew blanks; and those who, finding the market was unduly depressed, bought in at a discount, with a view of breaking up the companies and realising at the expense of the steady investors.

It is one of the worst features in the late crusade that the victims marked out were those very parties whom the legislature professes so much to encourage, the class of steady investors. The claim for breaking up companies was not that a line was less necessary from Manchester to Southampton, from Salisbury to Yeovil, or from Reading to Reigate, but that the market had changed, and so there might be greater difficulties in raising capital. The fair way to meet this was not by breaking up the companies, but by waiting and seeing when the additional capital came to be raised—and not before—whether the market would really be in a state of distress, or whether it would be relieved. Even in the interval of the panic agitation a most material rise has occurred in the market, and the difficulties have been alleviated, while we have no proof that at the end of the year the market will be in a bad state. When parties had entered upon an undertaking, having a regard to its intrinsic merits, and with a view to permanent investment, nothing could be worse conceived than the interposition of contrivances by which the undertaking could be aborted, and the whole expenditure frustrated.

In a great many cases, as it is, from the evil constitution of the

standing orders, and of parliamentary committees, many valuable undertakings are thrown over till next session, and many will yet succumb, and this constitutes an objection to prevent steady investors from engaging in new undertakings. Now, however, the difficulties are still more aggravated. An investor might be contented to take his chance whether a line would be likely to get through Parliament, but he is indisposed to be mulcted of a portion of his deposits, by his fellow-subscribers refusing to go on, or by new parties buying in at a discount with a view to realise. Whenever really useful companies for lines which must be made are broken up, the whole expenses already incurred are wasted, and whenever the undertaking is again brought forward, the whole expense must be begun anew. Newspaper proprietors reap their harvest, advertisement agents flourish, solicitors, engineers, statista, and their swarm of subordinates, run up their charges, standing orders have to be met, and parliamentary contests carried out. This may be done once, twice, or thrice, and even then a great panic may come, and the whole proceedings be delayed for years.

It is scarcely likely that persons who wish an early and regular return on their money will expose themselves to such risks, for in such expenses much of their capital may be fruitlessly wasted. The result is, therefore, to deter the steady investor, and to reward the middleman and speculator, whom legislators hold in such abhorrence. It is always better worth the while of an investor to pay a premium after an Act of Parliament has been obtained, than to be mulcted of his money in a series of fruitless subscriptions, thrown back year after year by standing orders committees and organised breakers up.

A claim to relief, which has no justice in itself, has only resulted in placing difficulties in the way of legitimate enterprise ; while at the same time the proposed measure has proved inefficient to produce the expected slaughter of railway companies, the resistance having been found in a quarter where it was little expected. It seems to have been assumed that so general was the alarm among shareholders that they would have hastened to have availed themselves of Lord Dalhousie's resolutions and thrown out the bills as soon as offered to them. It never seems to have been surmised that the majority of shareholders, instead of having an interest in breaking up their companies, have an interest in keeping them together ; but such is the fact. The greater part of the expense has been already incurred, while no reward has been reaped ; and if a company is to be broken up, it is better to do so after the act has been obtained and the bill thrown out, rather than to frustrate absolutely the objects of the expenditure. When a line has been got through standing orders, and brought into committee, when the race is half run, it is madness to retire from the contest. The breakers-up have turned out numerically small, and the vigour of the shareholders in defending their property has proved greater than was anticipated, so that it is evident the legislative measures were taken on a false assumption of the facts.

Now that this attempt at railway relief or rather railway destruction has been foiled, a new endeavour is being made to get the legislature to interfere ; but we are happy to see that Sir Robert Peel has expressed his decided determination not to give his countenance to any plan for

restricting the amount of capital. Sir Robert has already felt the inconvenience and discredit of departing from the sound principles of political administration, and he is not to be tempted at the heels of one failure to be led into another. He succumbed to public outcry against his own convictions, and he would be imprudent as well as unjust if, with the adverse working of the present plan, he were to rise for the purpose of proposing other restrictive measures.

Throughout the campaign against railways, there has been a recklessness of assertion and assumption scarcely paralleled. This is indeed, to be accounted for from the circumstance of the *Times* having staked its reputation in the cause; but it is still discreditable to common sense that the mass of the public should have so far given way. Besides the pregnant proof we have already given of the false basis of action, we confidently point to a ground on which the panic-mongers have strongly intrenched themselves—the diversion of capital to railways to the injury of other pursuits. We point to this, and we say that there is no proof that capital or labour has been diverted. We are perfectly well aware that the wages of masons, bricklayers, and others have advanced—that wages generally have advanced; but we are not prepared to admit that such rise has anything to do with railways, but with the better harvests, the consequence of which has been, as it always has, to produce a rise in wages throughout the country. Any one who can read a chapter in Adam Smith, can give his testimony to this point, even if he has not his own experience to refer to.

If an undue pressure had taken place on the labour market, and an injurious diversion been effected, surely our manufacturing and agricultural industry would have felt it; our power of production would have been reduced; our exports, and consequently our imports, would have seriously diminished. But none of these results have been produced by railway action. If the labour market had been so affected by the railways as has been assumed, how is it that the remuneration of agricultural labour is so miserably low, that there is even a dispute whether seven shillings or eight shillings a week is in some districts a liberal rate? Agricultural labour is the school, as it were, of railway labour; and we have yet to learn that agricultural labour, so miserably remunerated, and hitherto so much in surplus, has now been found insufficient for the demands of cultivation.

With regard to the statement that the financial situation of the country is embarrassed by the railways, it is another of those fabrications, to which only the impudence of the concoctors can give currency. The impediments to business have no relation at all to railways, but to the uncertain situation of every branch of trade, consequent upon the present state of the corn bill and the tariff bill. It may answer the purposes of political partisans to represent that railways are the active cause, and while the public have been labouring under the railway phobia, it has kept them from adverting to the true cause; but the calm reflection of every manufacturer and every tradesman teaches him that political affairs cause the stagnation, and not railways. Closely connected with these circumstances is the delusion that there is a great deal of money locked up in railway deposits, and that a great deal will be let loose and give relief;

though even the *Times* dare not hold out this hope, which the returns of the Bank of England would serve to disprove, if anything were wanting. The money said to be locked up is now in circulation, and the supposed measure would only effect a redistribution without giving any substantial relief.

While Lord Dalhousie's and Mr. Duncombe's resolutions served to amuse the public until their emptiness had been found out, the real remedy for undue pressure on the money market or the resources of individuals has been neglected. This remedy is, as remarked by the writer of the letters to Mr. Hudson in the *Railway Herald*, the abrogation of the power of suing for calls—an innovation scarcely of ten years' standing, and by means of which alone can a man to meet calls be deprived of his property. Under the old practice and the rightful practice, when a holder was no longer able or no longer willing to pay on his shares he forfeited them, and that was quite sufficient penalty to induce any man to hold to his property as long as he could. By the practice of suing for calls in depressed times, not only is a weak holder liable to be stripped of his separate property to the last farthing, but he is prevented from selling by the liabilities attaching to the shares, and in the end, when nothing more can be wrung from him, his property is forfeited. To alter this state of affairs would be to give the real railway relief.

AMERICAN RAILWAYS.

APRIL 28.—The bill granting the right of way for the extension of the Baltimore and Ohio railway from its present terminus at Cumberland, in Maryland, to Pittsburgh, has passed the legislature of Pennsylvania, and only awaits the signature of the governor to become a law. Also a bill to charter a turnpike road to connect the Williamsport and Elmira railroad with the Blossberg and Painted Post railroad.

Books have at length been opened to receive subscriptions to form the Skuylkill railroad (enacted in 1845) from or near Fairmount waterworks along the bank of the river southward, so as to give termini to the Reading railroad, and the Columbia railroad, at every wharf on the western side of Philadelphia. It had been resolved by the city authorities as early as 1829, and will give outlets to the Great Western railroad lately enacted, and for which latter subscriptions for three millions of dollars are to be opened shortly.

One thousand shares of a new stock of the Boston and Providence Railway were sold on 22d April, at Boston Stock Market, at 8 to 8½ premium. It takes the July dividend.

The Hudson River Railroad Bill has passed the legislature of New York.

In New York legislature, the New York and Erie Railroad Bill has been defeated on final reading by a majority of one vote; some say it will be reconsidered.

THE
GROSS RECEIPTS OF RAILWAY TRAFFIC,

MADE UP FROM THE

*Week ending April 18th, to the week ending May 16th, showing likewise
the Traffic of the corresponding weeks of 1845.*

Total amount authorized to be raised.	Total amount already expended.	Last dividend.		NAME OF RAILWAY.	1846.	1845.
		Per share.	Per cent. per annum.			
£	£	£ s. d.	£ s. d.		£	£
160,000	140,203	—	3 10 0	Arbroath and Forfar	783	....
1,441,163	1,527,267	3 0 0	6 0 0	Birmingham and Gloucester... Returns imperfect.		
—	667,823	{ 30s., 12s., 13s., 6s.6d }	4 0 0	Bristol and Gloucester..... Returns imperfect.		
800,000	589,362	{ 13s., 6s.6d }	2 12 0	Chester and Birkenhead.....	5,001	4,368
—	631,258	1 4 0	3 14 0	Dublin and Drogheda.....	3,817	4,348
270,000	349,736	—	9 0 0	Dublin and Kingstown.....	....	....
210,000	153,598	3 0 0	6 0 0	Dundee and Arbroath.....	1,443	1,438
362,000	302,118	0 10 0	2 0 0	Durham and Sunderland	2,937	2,922
4,644,621	4,080,328	{ E 9s. N. 22½ }	E. 6½ N. 5½ }	Eastern Counties and Northern and Eastern	41,835	24,933
1,800,000	1,686,226	1 10 0	6 0 0	Edinburgh and Glasgow.....	16,429	13,769
1,453,000	1,104,773	1 10 0	6 0 0	Glasgow, Paisley, and Ayr.....	9,589	8,368
866,666	806,134	0 5 0	2 0 0	Glasgow, Paisley, and Greenock	4,437	4,496
2,364,333	2,597,317	5 0 0	10 0 0	Grand Junction, amalg. with Birmingham	....	....
—	82,828	—	—	Gravesend and Rochester .....	....	....
1,730,000	1,296,196	5 10 0	6 0 0	Great North of England.....	....	....
8,160,000	8,179,980	3 4 0	8 0 0	Great Western	97,064	87,175
—	—	—	—	Hartlepool	5,933	....
—	701,740	1 10 0	6 0 0	Hull and Selby, amalg. with York & N. Midland	....	....
2,637,375	1,774,331	5 0 0	10 0 0	Liverpool & Man., amal. with Bir. ... Returns imperfect.		
6,412,000	7,417,317	5 0 0	10 0 0	London and Birm. & Grand June.	187,155	....
1,086,000	1,078,761	0 2 6	1 10 0	London and Blackwall	5,064	....
2,920,000	2,653,673	1 15 0	7 0 0	London and Brighton.....	22,906	21,609
991,333	842,562	0 7 0	3 10 0	London and Croydon	7,486	6,797
4,212,000	2,620,794	2 2 6	10 4 10	London and South Western.....	36,612	3,267
2,893,000	2,197,585	1 3 10½	6 2 4	Manchester and Birmingham ..	22,773	....
4,743,333	3,373,340	2 18 0	8 0 0	Manchester and Leeds.....	29,682	31,213
680,000	842,725	2 14 0	5 16 0	Manchester and Bolton, & Bury	5,498	5,278
6,316,800	6,636,105	3 13 9	7 7 6	Midland	79,421	62,041
1,250,000	1,137,365	—	5 0 0	Newcastle and Carlisle	9,273	7,706
—	1,272,031	1 2 6	9 0 0	Newcastle and Darlington.....	13,267	7,463
210,000	316,529	1 6 3	6 0 0	Newcastle and North Shields ..	9,366	1,950
—	673,818	0 10 0	5 0 0	Norfolk	6,069	1,407
—	1,060,451	3 7 6	6 15 0	N. Union & Bolton & Preston, amalg. with Man. and Leeds.	....	....
450,000	432,014	0 12 6	2 10 0	Preston and Wyre	3,023	2,944
1,533,000	1,313,225	—	5 0 0	Sheffield and Manchester.....	8,553	4,366
3,817,277	4,284,924	0 16 0	3 4 0	South-Eastern and Dover	36,856	27,813
640,000	648,348	3 3 0	5 0 0	Taff Vale	5,968	4,976
933,035	358,353	—	5 10 0	Ulster..... Returns imperfect.		
998,666	1,632,899	50s., 25s.	10 0 0	York and North Midland	25,216	13,068
FOREIGN RAILWAYS.						
1,600,000	3,002,916	0 18 9	8 0 0	Paris and Orleans.....	25,902	23,800
1,440,000	—	0 18 6	8 0 0	Paris and Rouen	25,484	21,383

RAILWAY SHARE LIST.

Shares.	Railways.	Paid.	CLOSING PRICES.			
			May 4.	May 11.	May 18.	May 25.
£		£				
50	Aberdeen	10	4½ — 3½ dis	5 — 4 dis	4½ — 3½ dis	6½ — 5½ dis
100	Amber, Nott., Boston, & E. Jun.	100	124 — 126	124 — 126	124 — 126	124 — 126
25	Birmingham and Gloucester ..	17½	30½ — 31½	31 — 32	31 — 32	31 — 32
20	Do. New (issued at 7½ dis.) ..	2	1 — 1½ pm	1 — 1½ pm	1 — 1½ pm	1 — 1½ pm
100	Birmingham and Oxford Junction ..	75	8 — 10 pm	10 — 12 pm	9 — 11 pm	8 — 10 pm
33½	Bristol and Exeter	5	5 — 6 pm	5 — 6 pm	5 — 6 pm	4 — 5 pm
50	Do. New	30	20 — 22 pm	20 — 22 pm	20 — 22 pm	20 — 22 pm
20	Bristol and Gloucester	42½	..	..	..	..
50	Buckinghamshire	15	2 — 1½ dis	2 — 1½ dis	2 — 1½ dis	2 — 1½ dis
25	Caledonian	2½	1 — 1½ par	1 — 1½ dis	1 — 1½ dis	1 — 1½ dis
25	Do. ½ Shares	1½	1 — 1½ dis	1 — 1½ dis	1 — 1½ dis	1 — 1½ dis
50	Do. Extension	22½	1 — 2 pm	1 — 2 pm	1 — 2 pm	1 — 2 pm
20	Cambridge and Oxford	2	..	..	..	..
20	Chester and Holyhead	1½	..	..	..	..
25	Churnet and Blythe	1½	..	..	..	..
25	Cork and Waterford	5	3½ — 2½ dis	3½ — 2½ dis	3½ — 2½ dis	4 — 3 dis
50	Cornwall	2½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
25	Derby and Crewe	2½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	Direct Manchester (Remington's) ..	5½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
25	Do. do. (Rastrick's)	2½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	Direct Northern	10	3 dis — par	3 — 1 dis	3 — 1 dis	3 — 1 dis
40	Dublin and Belfast Junction	4	2 — 1½ dis	2 — 1½ dis	2 — 1½ dis	2 — 1½ dis
50	Dublin and Galway	14.16.0	24½ — 24½	23½ — 24½	23½ — 24½	23½ — 24½
Average	Eastern Counties	8.16.0	8 — 8 pm	7½ — 8 pm	7½ — 8 pm	7½ — 8 pm
14.16	Do. New	6.13.4	4 — 4 pm	4 — 4 pm	4 — 4 pm	4 — 4 pm
6.13.4	Do. Perpet 5 percent. No. 1 ..	6.13.4	4 — 4 pm	4 — 4 pm	4 — 4 pm	4 — 4 pm
6.13.4	Do. do. (Rastrick's) No. 2 ..	10	1½ — 1½ pm	1½ — 1½ pm	1½ — 1½ pm	1½ — 1½ pm
10	Do. York Extension	50	75 — 77	76 — 78	76 — 78	75 — 77
50	East Lincolnshire	10	..	..	..	..
25	Edinburgh and Glasgow	12½	18 — 20	18 — 20	18 — 20	18 — 19
19½	Do. ½ Shares	12½	4½ — 5½ pm	5 — 6 pm	5½ — 6½ pm	18 — 19
19½	Do. New ½ Shares	3	..	..	..	..
18	Edinburgh and Perth	7½	3 — 2 dis	2½ — 1½ dis	3 — 2 dis	3 — 2 dis
20	Ely and Huntingdon	42½	1 — 1 pm	1 — 1 pm	1 — 1 pm	1 — 1 dis
25	Goole, Doncaster, & Sheffield ..	1½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Grand Union (Nottingham & Lynn) ..	2½	..	..	..	..
50	Great Eastern and Western	42½	..	..	..	..
20	Great Grimsby, Louth, Humber, ..	20	5 — 7 pm	4 — 6 pm	4 — 5 pm	3 — 4 pm
100	Great South & West (Ireland) ..	100	213 — 216	214 — 217	215 — 220	215 — 220
40	Do. New	5	47 — 49 pm	47 — 49 pm	47 — 49 pm	47 — 49 pm
20	Do. New	10	28 — 30 pm	28 — 30 pm	28 — 30 pm	28 — 30 pm
15	Do. New	1½	12 — 13 pm	12 — 13 pm	12 — 14 pm	12 — 14 pm
100	Great Western	85	73 — 76 pm	65 — 70 pm	64 — 66 pm	58 — 62 pm
50	Do. ½ Shares	50	40 — 45 pm	38 — 40 pm	36 — 38 pm	33 — 35 pm
25	Do. ½ Shares	5	14 — 15 pm	12½ — 13½ pm	12 — 13 pm	11 — 12 pm
20	Do. Fifths	20	16 — 17 pm	14½ — 15½ pm	14 — 15 pm	13 — 14 pm
50	Guildford, Fareham, & Portsmouth ..	5	102 — 104	102 — 104	102 — 104	102 — 104
50	Hull and Selby	12½	8 — 10 pm	8 — 10 pm	8 — 10 pm	8 — 10 pm
12½	Do. ½ Shares	15	18 — 20 pm	20 — 22 pm	20 — 22 pm	19 — 21 pm
25	Do. ½ Shares	15	19 — 21 pm	17 — 19 pm	17 — 19 pm	16 — 18 pm
50	Lancaster and Carlisle	40	19 — 21 pm	17 — 19 pm	17 — 19 pm	16 — 18 pm
20	Do. New	5	5½ — 6½ pm	5 — 6 pm	5 — 6 pm	4½ — 5½ pm
50	Leeds and Bradford	22½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Leicester and Birmingham	22½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Leicester and Bedford	42½	1½ — 1½ dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Leicester, Tamw., Cov., Birm., ..	2½	..	..	..	..
25	and Trent Valley Junction	2½	..	..	..	..
25	Liverpool and Leeds Direct	100	228 — 230	227 — 229	227 — 229	226 — 228
25	Liverpool, Manchester, and ..	24	39 — 40 pm	38 — 39 pm	38 — 39 pm	38 — 39 pm
Stock	London and Birmingham	2	27½ — 28½ pm	27 — 28 pm	27 — 28 pm	26 — 27 pm
32	Do. Thirds	2	23½ — 24½ pm	23 — 24 pm	23 — 24 pm	22½ — 23½ pm
25	Do. Quarters	1½	..	..	..	..
20	Do. Fifths	1	..	..	..	..
25	London and Birm. Extension	16.13.4	8½ — 8½ pm	7½ — 8½ pm	7½ — 8½ pm	7½ — 8½ pm
Average	London and Blackwall	2½	1 — 1½ pm	1 — 1½ pm	1 — 1½ pm	1 — 1½ pm
50	Do. New	50	66½ — 66½	65½ — 66	65 — 66½	64½ — 65½
50	Do. Consolidated Elphinstone ..	30	11½ — 12½ pm	11 — 12 pm	11 — 12 pm	10 — 11 pm
Average	London and Croydon	13.15.9	23 — 23½	22½ — 23	22½ — 23	22½ — 23
9	Do. Guaranteed 5 percent. ..	9.0.0	9 — 10 pm	9 — 10 pm	9 — 10 pm	9 — 10 pm
Average	London and Greenwich	12.15.4	22 — 24	22 — 24	22 — 24	22 — 24
Average	Do. Preference or Privilege ..	18.17.2	80 — 82	78 — 80	78 — 80	78 — 80
Average	London and South Western	41.6.10	19 — 21 pm	18 — 20 pm	18 — 20 pm	17 — 19 pm
40	Do. New Consol. Eighth	17½	11 — 13 pm	11 — 13 pm	11 — 13 pm	11 — 13 pm
40	Do. New	14	9 — 11 pm	8 — 10 pm	8 — 11 pm	8 — 10 pm
40	London and York	2½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
25	Do. ½ Shares	2½	..	..	..	..
50	London, Warwick, and Kidderm ..	2½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis
50	London, Salisbury, and Yeovil ..	2½	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis	1½ — 1½ dis

Shares.	Railways.	Paid.	CLOSING PRICES.			
			May 4.	May 11.	May 18.	May 25.
£	£	£				
50	Londonderry and Coleraine ..	10	5 — 3 dis	5 — 3 dis	5 — 3 dis	5 — 3 dis
50	Londonderry and Enniskillen ..	10	— — —	— — —	— — —	— — —
25	Lynn and Ely ..	15	— — —	— — —	— — —	— — —
25	Lynn and Dereham ..	10	3½ — 2½ dis	3 — 2 dis	3 — 2 dis	2½ — 1½ dis
100	Manchester and Leeds ..	82	45 — 50 pm	43 — 48 pm	40 — 45 pm	40 — 45 pm
50	Do. ½ Shares ..	38	20 — 25 pm	18 — 22 pm	18 — 22 pm	18 — 22 pm
25	Do. ¼ Shares ..	2	9 — 11 pm	8 — 9 pm	8 — 9 pm	8 — 9 pm
20	Do. Fifths ..	3	10 — 11 pm	9 — 10 pm	9 — 10 pm	9 — 10 pm
6½	Do. Sixteenths ..	6½	3 — 4 pm	3½ — 3½ pm	3 — 3½ pm	3 — 3½ pm
20	Do. Extension ..	42½	3½ — 3½ pm	2½ — 3½ pm	3 — 3½ pm	2½ — 3½ pm
40	Manchester and Birmingham ..	40	80 — 82	81 — 83	80 — 82	79 — 81
10	Do. ½ Shares, A ..	4	8½ — 9½ pm	8½ — 9½ pm	8½ — 9½ pm	8½ — 9 pm
10	Do. do. B ..	4	8½ — 9½ pm	8½ — 9½ pm	8½ — 9½ pm	8½ — 9 pm
	Do. do. C ..	1	7½ — 8½ pm	7½ — 8½ pm	7½ — 8½ pm	7½ — 8½ pm
20	Do. Contin. and Welsh Junc. ..	42½	1½ — 1½ pm	1½ — 1½ pm	1½ — 1½ pm	1½ — 1 pm
20	Manch., Buxton, and Matlock ..	2	— — —	— — —	— — —	— — —
40	Manchester and Southampton ..	100	156 — 156	154 — 156	153 — 155	147 — 149
Stock	Midland ..	18	16½ — 17½ pm	15 — 16	15 — 16	14½ — 15½ pm
40	Do. New ..	100	125 — 129	124 — 126	123 — 125	119 — 121
Stock	Do. Birmingham and Derby ..	25	21 — 23 pm	19 — 21 pm	19 — 21 pm	18 — 20 pm
25	Newcastle & Darlington Junc. ..	1	9 — 10 pm	8½ — 9½ pm	8 — 9½ pm	7½ — 8½ pm
25	Do. New, Brandling ..	25	20 — 22 pm	19 — 21 pm	19 — 21 pm	18 — 20 pm
25	Newcastle and Berwick ..	15	10½ — 11½	10 — 11	10 — 11	9½ — 10½
25	Newark, Sheffield, and Boston ..	1½	1½ — 1½ dis	— — —	— — —	— — —
20	Norfolk ..	20	— — —	6½ — 7½ pm	6 — 7 pm	5 — 7 pm
10	Do. ½ Shares ..	5	— — —	3 — 4 pm	3 — 4 pm	2½ — 3½ pm
2	Do. Tenth's ..	2	— — —	— — —	— — —	— — —
20	Do. Extension ..	2	— — —	— — —	— — —	— — —
25	North British ..	22½	7½ — 8 pm	7 — 7½ pm	8 — 9 in	7 — 8 pm
12½	Do. ½ Shares ..	8½	3½ — 4 pm	3 — 3½ pm	3 — 4 ex in	2½ — 3½ pm
12½	Do. Carlisle Extension ..	1½	1½ — 2 pm	1 — 1½ pm	1½ pm	— — —
25	Do. Dalkeith ..	25	— — —	— — —	— — —	— — —
5	Do. do. ..	5	— — —	— — —	— — —	— — —
50	Northern and Eastern ..	50	72 — 75	72 — 75	72 — 75	68 — 72
50	Do. Scrip (issued at 5 disc.) ..	40	22 — 24 pm	22 — 24 pm	21 — 23	20 — 23 pm
12½	Do. ½ Shares ..	12½	18 — 19	18 — 19	18 — 19	17½ — 18½
50	Do. New ..	1	19 — 21 pm	19 — 21 pm	19 — 21 pm	18 — 20 pm
50	North Kent and Direct Dover ..	2½	— — —	— — —	— — —	— — —
20	North Staffordshire ..	42½	5½ — 5½ pm	4½ — 4½ pm	4½ — 4½ pm	3½ — 4½ pm
25	North Wales ..	3½	— — —	— — —	— — —	— — —
	Northampton, Banbury, and Cheltenham ..	2	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Norwich and Brandon ..	20	7½ — 8½ pm	— — —	— — —	— — —
10	Do. New ..	5	3½ — 4 pm	— — —	— — —	— — —
50	Oxf., Worcester, and Wolverh. ..	12½	3 — 2½ dis	3½ — 3½ dis	4 — 3½ dis	4½ — 3½ dis
	Perth and Inverness ..	2½	— — —	— — —	— — —	— — —
30	Portsmouth Direct ..	3½	29 — 31 pm	1 dis — par	— — —	1 dis — par
25	Preston and Wyre ..	25	29 — 31 ex d	30½ — 31½ ex d	30½ — 31½	30 — 32
30	Do. ½ Shares ..	2½	— — —	— — —	— — —	— — —
25	Richmond ..	10	6 — 7 pm	5½ — 6½ pm	6 — 7 pm	6 — 7 pm
20	Rugby and Huntingdon ..	2	— — —	— — —	— — —	— — —
25	Scottish Central ..	10	6 — 7 pm	5½ — 6½ pm	6 — 7 pm	5 — 6 pm
	Do. New ..	2½	— — —	— — —	— — —	— — —
25	Scottish Midland ..	10	2 dis — par	2 dis — par	3 — 1 dis	4 — 2 dis
25	Shrewsbury, Wolverhampton, and Sth. Staffordshire Junc. ..	2½	— — —	— — —	— — —	— — —
25	Shrewsbury and Birmingham ..	2½	1½ — 1½ pm	1 — 1 pm	1 — 1 pm	1 — 1 pm
	Shrewsbury and Hereford ..	42½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Shropshire Union ..	35	3 — 1 dis	3 — 1	3 — 1	2 dis — par
50	South Devon ..	42½	2½ — 3 pm	1½ — 2½ pm	1 — 1½ pm	1 — 1 dis
Stock	South Midland ..	33.2.4	39 — 40	40 — 41	39½ — 40½	39 — 40
Average	South Staffordshire Junction ..	16	4½ — 5½ pm	4½ — 5½ pm	4 — 5 pm	3 — 4 pm
50	Do. New (issd at £32) No. 1 ..	10	4 — 5 pm	4 — 5 pm	3½ — 4½ pm	3 — 4 pm
50	Do. New (£33 6s. 8d.) No. 2 ..	15	1½ — 2½ pm	3 — 4 pm	2½ — 3½ pm	2 — 3 pm
25	Do. New (£30) No. 3 ..	2½	— — —	— — —	— — —	— — —
25	Do. New (issd at £15) No. 4 ..	1	dis — 1 pm	1 — 1 dis	1 — 1 dis	dis — par
20	Staines and Richmond ..	42½	— — —	— — —	— — —	— — —
20	St. Alban's, Hatfield, & Hertford Junction ..	5	2½ — 1½	3 — 2 dis	2½ — 2½ dis	3 — 2
20	Teign and Dove Valley ..	1½	— — —	— — —	— — —	— — —
20	Trent Valley and Holyhead Junc. ..	2½	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
20	Vale of Neath ..	2	— — —	— — —	— — —	— — —
20	Warwickshire and London ..	42½	— — —	— — —	— — —	— — —
20	Waterford and Kilkenny ..	8	4 — 3 dis	3½ — 2½ dis	3½ — 2½ dis	4 — 3 dis
	Waterford, Wexford, Wicklow, and Dublin ..	1½	— — —	— — —	— — —	— — —
20	Welsh Midland ..	2½	1½ — 1 dis	1½ — 1 dis	1½ — 1 dis	1½ — 1 dis
	West Riding Union ..	42½	3½ — 4 pm	2½ — 3½ pm	2½ — 3½ pm	2½ — 2½ pm
	Wexford, Waterford, & Valentia ..	13	1 — 1 dis	1 — 1 dis	1 — 1 dis	1 — 1 dis
50	Wilts., Somerset, & Weymouth ..	5	1 — 1 dis	1½ — 1 dis	1½ — 1 dis	2 — 1 dis
	Wisbech, St. Ives, and Cambridge Junction ..	2	— — —	— — —	— — —	— — —
20	Yarmouth and Norwich ..	20	7½ — 8½ pm	1½ — 1 dis	1½ — 1 dis	1½ — 1 dis
50	York and Carlisle ..	2½	1½ — 1 dis	— — —	— — —	— — —
50	York and North Midland ..	50	100 — 106	100 — 104	100 — 103	98 — 100
25	Do. ½ Shares ..	25	80 — 82	50 — 82	50 — 52	48 — 50
25	Do. Eastern Branch ..	95	80 — 82	49 — 81	49 — 51	48 — 50

FOREIGN RAILWAYS.

Shares.	Railways.	Paid.	CLOSING PRICES.			
			May 4.	May 11.	May 18.	May 25.
£	Barbadoes	£	—	—	—	—
25	Boulogne and Amiens	12	—	—	—	—
20	Bordeaux, Toulouse, & Cette, (Mackenzie's)	2	—	—	—	—
20	Bordeaux, Toulouse, & Cette, (Espelet's)	2	—	—	—	—
20	Calcutta & Diamond Harbour	7½	—	—	—	—
20	Central of Spain	2	—	—	—	—
20	Ceylon	5s.	—	—	—	—
20	Demerara	2½	—	—	—	—
20	Dendre Valley	2	—	—	—	—
20	Dutch Rhenish	6	—	—	—	—
20	East Indian	5s.	—	—	—	—
20	Great Indian Peninsula	5s.	—	—	—	—
20	Gt. North. of France (constitd.)	5	—	—	—	—
20	Great Paris and Lyons	2	—	—	—	—
20	Great Western Bengal	5s.	—	—	—	—
20	Great Western Canada	3½	—	—	—	—
20	Italian and Austrian	3	—	—	—	—
20	Jamaica South Midland June	1	—	—	—	—
15	Jamaica North Midland	1	—	—	—	—
20	Do. Extension	1	—	—	—	—
20	Jersey	1	—	—	—	—
20	Louvain and Jemeppe	4	—	—	—	—
20	Lyons and Avignon	2	—	—	—	—
20	Luxembourg	4	—	—	—	—
20	Namur and Liege	6	—	—	—	—
20	Orleans and Vierzon	10	—	—	—	—
20	Orleans and Bordeaux	6	—	—	—	—
20.16.8	Over-Veset	4.3.4	—	—	—	—
20	Paris and Lyons (constituted)	5	—	—	—	—
20	Do. do. (Laffitte's)	2	—	—	—	—
20	Do. do. (Gannaron's)	3	—	—	—	—
20	Do. do. (Cailon's)	2	—	—	—	—
20	Do. do. (Sud Est)	2	—	—	—	—
20	Paris and Orleans	20	—	—	—	—
20	Paris and Rouen	20	—	—	—	—
20	Paris and Strasbourg (const.)	5	—	—	—	—
20	Do. do. (Compe de L'Est)	2	—	—	—	—
20	Rouen and Havre	20	—	—	—	—
20	Sambre and Meuse	8	—	—	—	—
14	Strasbourg and Basle	14	—	—	—	—
20	Tours & Nantes (constituted)	5	—	—	—	—
20	West Flanders	4	—	—	—	—

R E P L Y

TO THE

S T A T E M E N T

PUT FORTH BY THE DIRECTORS

OF THE

SOUTH-EASTERN RAILWAY COMPANY.

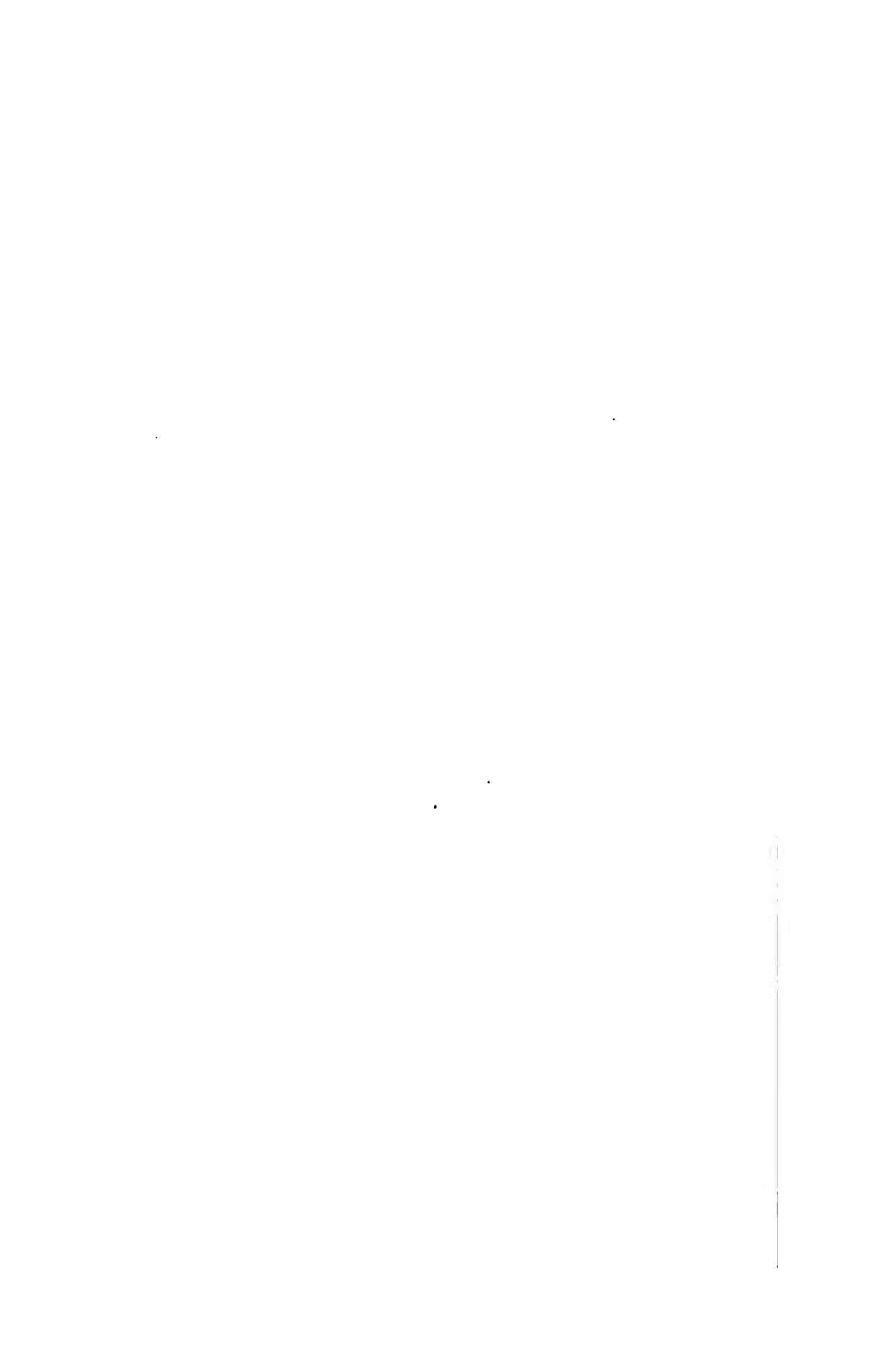
AUDI ALTERAM PARTEM.

L O N D O N :

PUBLISHED BY EFFINGHAM WILSON,

ROYAL EXCHANGE.

1846.



A R E P L Y,

&c.

IN the anticipation of the approaching parliamentary contest for the service of the Northern District of the County of Kent with Railway accommodation, the Directors of the South-Eastern Company have deemed it expedient to enter into an elaborate defence of their multifarious schemes for the present session; a task which they have accomplished in the form of a "General Statement of the Position and Projects of the Company," whose interests they represent.

Considering the grave amount of responsibility that attaches to the management of so large a capital as that which has already been confessedly sunk in the execution of the works intrusted to their control, it is not surprising that the Directors of the South-Eastern Company, having in view further and still more extensive undertakings, should have felt it incumbent upon them to enter into an explanation of somewhat more than ordinary detail; an explanation comprising, in fact, nothing less than a history of the Company from the period of its first establishment to the present date.

Notwithstanding the avowedly general character of this "Statement," it is impossible not to perceive that the

whole has been really drawn up with an exclusive reference to the claims and intentions of that particular Company with which they were directly brought into collision in the last parliamentary session, and which they are now shortly about to meet upon similar grounds before the same tribunal.

Sensible of the consequences of the establishment of an independent line, devoted expressly to the service of a valuable portion of the county, a remoter district of which they had distinctively appropriated to themselves, the project of a North Kent and direct Dover Railway has, as indeed might naturally be expected, been met by the Directors of the South-Eastern Company with a marked and vigorous opposition. In furtherance of this opposition, parliamentary opinion has to be influenced and public support obtained ; and this, the " Statement " in question is manifestly intended to accomplish.

That the sole object of this publication, whatever its nominal design, has been to pave the way for the advancement of the claims of the South-Eastern Company to the annexation of the northern district of the great county of Kent to their existing Railway system, there can in fact be no doubt. As a detail of the existing state and condition of the Company, it affords no available information whatever. Dealing almost exclusively in general observations, and limited, where it does enter into details, principally to that portion of its subject which concerns their newly-projected North Kent scheme, it can be only reasonably regarded as a vindication of the right to the supply of that important portion of the country with Railway accommodation, which they have so confidently asserted as exclusively belonging to themselves. Accordingly, it is upon these grounds merely that it is our intention to deal with it. As to the condition or prospects of the South-Eastern Company abstractedly

considered, it is a matter with which we have no concern, and therefore do not design to meddle. But the unreasonable pretensions which it has undertaken to advocate, to the prejudice of other schemes which have, to say the least, an equal claim to public favour, demand refutation; and to them shall our observations in the following pages be entirely confined.

The book, or "Statement," to which these remarks have reference, has been circulated with no little industry, and with a considerable degree of confidence. Whatever may be its merit as a prospectus for the various new schemes so ostentatiously brought forward, it certainly contains but little to induce the inhabitants of North Kent to acquiesce in so extraordinary a monopoly. The people of North Kent can hardly, we think, be beguiled by any force of reasoning, however subtle or refined, into the belief, that a Company who have mismanaged their affairs, even to the extent apparent upon their own shewing, and with above 180 miles of Railway already upon their hands, could execute the line and afford the accommodation of which that portion of the county stands so much in need, with the same efficiency as a Company having no conflicting interests to serve, no parallel line of Railway to foster, no existing liabilities to relieve; nothing, in short, to interfere with their giving the greatest possible amount of accommodation in exchange for a moderate return upon the mere capital to be expended in the execution of the undertaking itself.

The grounds upon which the Directors of the South-Eastern Company found their claims to preference in the construction of a North Kent line, so far as they can be collected from the "Statement" before us, appear to resolve themselves into four distinct heads, under which they may be more conveniently considered.

1. The first of these, and that upon which the greatest stress appears to be laid, is priority of design in respect of the scheme in question, and the frustration of that design, originally, by obstacles which were then beyond their control. They allege that the landowners of North Kent, in the early days of Railway operations, were averse to a line passing through that part of the county; and (though the paragraphs with which the case is introduced are singularly ambiguous in all that relates to this part of their history) the inference is unavoidably suggested, that the promoters of the South-Eastern Company were the parties offering that accommodation—that by the opposition of the landowners, and the parliamentary policy of the day, they were driven to the adoption of the line they eventually constructed by Reigate and through the Weald of Kent—and that having thus been confined in their freedom of action to the South-Eastern district, and having there expended a large capital in a not-over-productive undertaking, they are entitled to compensate themselves by another line through the more populous district of North Kent, to the exclusion of a new and independent Company, who might otherwise become their competitors.

Admitting for a moment the correctness of this representation (which, however, we shall presently shew to be entirely erroneous), we beg to be permitted to state, that we consider it to be a principle utterly void of foundation, that mere priority of intention can give to one party any title to preference over another in respect of the execution of any work they may severally have projected. Could it for a moment be supposed that, because certain individuals once contemplated the establishment of a Railway in Hampshire, but which they found themselves unable to accomplish, and consequently turned their attention to one in Wiltshire, in the execution of which they were more successful,

this would give them a right to except against or ride over any other parties who might afterwards come forward to accommodate the county from which they had previously thought proper to withdraw? Were such a plea to be held admissible, it would be in the power of any influential Company to embarrass, or put a stop to all improvement in the country, by merely *extending an intention* to any or every possible number of lines which they might conceive likely to be required; and then, upon the basis of the principle involved in the position of the South-Eastern Directors, step forward and stifle the endeavours of any who, with more efficient means or more disinterested views, might seek to realize the projects which they had only assumed to have devised.

Passing over, however, the insufficiency of the plea, we have no hesitation in saying that, as an argument in favour of the position assumed by the Directors of the South-Eastern Company, it will be found to be no less incorrect than it is weak. In the first place, we contend that it is altogether irrelevant to the question, to attempt to identify as the proceedings or intentions of a Company the proceedings or intentions of distinct individuals antecedent to its own constitution; and for this simple reason, that until such constitution it can never be effectually ascertained whether those individuals really form any part of the Company by whom the benefit of them is subsequently claimed. If, therefore, any importance could be attached to the plea of priority of intention in respect of a project said to have been concocted in 1832, we deny that the Directors of the South-Eastern Company, established in 1836, can shew a particle more right to the benefit of it than the Directors of the independent North Kent, *virtually* established in 1845.

But, in the second place, let us proceed to look a little

more closely into this assumption of a priority of design in respect of a North Kent Railway, and its frustration by the opposition of the landowners and the parliamentary policy of the day. In the mode in which we have been hitherto dealing with the claims of the South-Eastern Directors, as set forth in their "Statement," we have been adopting, as of necessity, the inference that such a priority of design had been expressly asserted in connection with the Company in whose behalf it has been advanced. But, such is really not the case. With all the minute detail of projects entertained and abandoned, with all the display of argument about priority of design and the hardship of uncalled-for competition, no attempt is expressly made to establish any definite connection between the promoters or Directors of the South-Eastern Company, and any of these projects so carefully enumerated and described. There is not, in fact, throughout the whole "Statement," a single distinct specification of any parties related to or representing that Company having ever proposed or contemplated a North Kent scheme, before the project had been taken up by the parties against whose interference they are at present so loudly exclaiming.

Without for a moment intending to insinuate that the Directors of the South-Eastern Company could have been conscious of such a purpose, we cannot help feeling that the manner in which this part of their argument is conducted is very unjustly calculated to lead the public mind to a conclusion totally different from what the premises would suggest, if they had been fairly and distinctly represented.

And now let us see how the real facts of the case bear out the presumption that a North Kent scheme, for which they are now so stoutly contending, ever formed part of the design with a view to which the South-Eastern Com-

pany was originally constituted. Certain it is, that when they first brought out their scheme for the South-Eastern Railway, other parties were in possession of the North Kent district, and even a third company had projected and surveyed a Mid-Kent line; all three parties being in Parliament for bills in 1836. Now, it is rather an important circumstance, as bearing upon the present question, that it does not appear that the original promoters of the South-Eastern line at the time entertained any very serious apprehensions from the North Kent project, or offered it any vigorous opposition, except in respect of its extension to Dover; nor did any thing transpire to warrant a suspicion that they laid any claim to the Thames valley as part of their system, or entertained any views with respect to it in connection with their Railway speculations.

With regard to the views of Parliament as having influenced the promoters of the South-Eastern Railway to the adoption of the line which they then pursued, if we may judge of those views by the extracts quoted in the "Statement" before us, so far from regarding with disfavour the project of a North Kent line, the committee sitting on the schemes in question, and at the time of passing the South-Eastern Bill, expressly distinguished the North Kent District as one entitled to consideration, "provided it could be shewn that such a line might be accomplished without insuperable engineering difficulty."

To what extent the promoters of the South-Eastern Company may have been determined in their choice of a line by the opposition of the inhabitants of Kent, if indeed their choice had been affected by such considerations, we do not take upon ourselves to pronounce. But this much is clear beyond all question, that no such opposing principle prevailed to any very great degree in the districts through which chiefly the North Kent line would then have had, as

it has now, to be conducted; for, even in 1836, we find the inhabitants of important towns along the line, Chatham, Rochester, and Strood, holding public meetings, and actually petitioning Parliament that no line of Railway should be sanctioned through Kent which did not include those towns and their vicinities.

Whatever, therefore, may have been the general policy of Parliament at the period in question, or whatever the sentiments of the inhabitants of Kent in other districts, it is not probable that either the one or the other could have had any share in preventing the original promoters of the South-Eastern Railway from including the North Kent District within the sphere of their speculations, if ever they had seriously entertained any intention upon the subject. And it does seem not a little unjust towards North Kent and those who have now come forward to supply its wants, that the Company, who pressed their original Bill in opposition to the wishes of the districts so clearly evinced, as we have just shewn, and who executed their line with a full knowledge that the very committee which had reported in their favour, had declared that a North Kent line would deserve consideration if its engineering difficulties could be overcome, should now endeavour to wrest from the hands of others a project which they were the first to bring forward in a practicable shape, and which, but for their interference, as we shall presently shew, there is every reason to believe would never have been attempted by those who are now so clamorous in its behalf.

The truth is, the South-Eastern Company was originally formed for other objects than the accommodation of North Kent, and more consistent with the name by which they had elected to be distinguished; namely, the carrying out of a Railway from London to Brighton and Dover by one common outlet from the metropolis. The opposition

of other Companies indeed subsequently compelled them to abandon the Brighton portion of their scheme. But even then, when one might suppose they would, if ever they had such intentions, have proceeded to the completion of what they please to call their original designs, they made no attempt to extend their works to North Kent; but instead of doing so, reduced their capital from £2,100,000 to £1,400,000, confining their views to the execution of their original plan and mode of carrying their line to Dover by the Croydon Railway, and through the Weald of Kent.

Their first prospectus, dated the 30th October, 1835, is entitled "South-Eastern Railway.—London to Brighton and London to Dover." "To Brighton by Croydon, Oxted, North Lindfield, and Clayton." "To Dover, by Croydon, Oxted, Tunbridge, and Ashford."

The following paragraphs in the body of this prospectus clearly define the object and scheme of the Company.

"The great importance attached by subscribers to the immediate opening of a communication by Dover with the continent has determined the promoters of this undertaking on proceeding in the next Session of Parliament to complete their whole design to Brighton and to Dover, adopting the Greenwich and Croydon Railway for passengers to and from the city, and the Southampton Railway for the west end traffic to one common point at Croydon."

"The plan, therefore, not only offers the shortest and most direct line to Brighton, but for the first twenty miles out of London it answers the purpose of a joint communication with Brighton, Tunbridge, the Weald of Kent, and Dover.

"The advantages of effecting these very important objects at one common expense for a considerable part of

“ the distance and by the adoption of existing outlets from
 “ London are obvious.

“ From the junction at Croydon the line proceeds to a
 “ point between Oxted and Godstone.

“ From Oxted the Brighton line is carried almost direct
 “ by Worth, Lindfield, Wivelsfield, and Clayton, and
 “ terminates at the great northern entrance. This ter-
 “ minus is central to all parts of Brighton, and from it a
 “ branch may be carried to Shoreham, five miles, by which
 “ the commercial advantages of that port will be secured
 “ without increasing the distance of Brighton from the
 “ metropolis and subjecting passengers to the inconvenience
 “ of travelling round by Shoreham. From Wivelsfield a
 “ favourable line is formed to Lewes and to Newhaven, to
 “ which, as the only good natural harbour for large
 “ vessels between the Downs and Portsmouth, the atten-
 “ tion of government and the public has long been directed.
 “ From Oxted the Kentish line proceeds direct to Tun-
 “ bridge, from whence a short branch leads to Tunbridge
 “ Wells.” “ From Tunbridge the line is direct through
 “ the Weald to Ashford, and thence to Dover.”

Can any one say, after reading these paragraphs, that the South-Eastern Railway was really formed to serve as a grand trunk line for the north or north-eastern part of Kent? Is it not, on the other hand, obvious that it was constituted with an exclusive view to the districts between Dover and Brighton, the true south-eastern direction of the line?

And this conclusion is only consistent with the testimony afforded in the express declarations of the engineers to whom the selection of their line was originally referred. In the printed evidence offered by the South-Eastern Company themselves before the Committee of Parliament in 1886, we find Mr. H. R. Palmer, then their engineer in

chief, and whose attention, he says himself, had been directed to the subject of Railways in Kent ever since the year 1825, making the following very remarkable statements with reference to the views which the promoters of that Company originally entertained. "I was instructed," he says, "to ascertain such a line between London and *Dover as would also form part of a communication between London and Brighton.*" And, subsequently, as if it had been so ordered, that no doubt whatever might be left as to the original views of the South-Eastern Company, the question is distinctly repeated to him, "Were not your instructions to see *if a Railroad could be made to Dover communicating with Brighton also?*" To which he replies, in terms equally comprehensive and clear, "Undoubtedly, I had such instructions; and I attempted to form a line to Dover and another to Brighton, having one common course to a certain distance, and I was very much astonished when I found (having made that attempt, *in which I was very ready to make something like a sacrifice on the part of Dover to Brighton*),—I was surprised to find I had made no sacrifice, but that I had still got the best possible line to Dover."

And these admissions on the part of Mr. Palmer, the engineer by whom the line was first laid down, are fully corroborated by the testimony of Captain Pringle, of the Engineers, another witness produced by the promoters of the South-Eastern Company before the same committee in 1836. Captain Pringle distinctly asserts, on the part of the promoters, of whom he was himself one, that they did not either design or desire to establish any communication with North Kent, of the kind which they would now fain persuade the world was a part of their original scheme. "We don't pretend," he observes, "to make a branch to Rochester. We should be glad if Rochester made a

“branch to us.” Is it not, therefore, evident from these declarations that whatever might have been the cause of their adopting their present line, whether the desire to include Brighton within their scheme or (as it will more probably be inferred from the rest of the evidence given upon the occasion in question) the formidable engineering difficulties of the country, the views of the promoters of the South-Eastern Railway, in 1836, were in strict accordance with what they themselves represented them to be in the prospectus to which we have above referred?*

In conformity to this prospectus, so far as the Kentish portion of their project was concerned, a Bill for the incorporation of the Company was brought into Parliament in 1836, and was passed on the 21st June in that year. But do they then proceed to the accomplishment of their scheme? So far from it, we find them in Parliament again the following year, having suspended the execution of their already sanctioned line, renewing their efforts for the Brighton line; and it is to arrangements entered into between them and the Brighton Company for their mutual advantage, that the diversion of their trunk line from Oxted to Reigate, three miles and a half further to the south-eastward, is really to be ascribed, and not to any principle of opposition on the part of the landowners, or the parliamentary policy of the day. This agreement the Directors set out in their Report to their shareholders in 1838; taking credit to themselves for the arrangement as securing a beneficial interest in the Brighton traffic.

In the year 1838 they turned their attention to the formation of the residue of their line from Reigate to Dover, which appears to have occupied six more years in the con-

* Additional extracts from the evidence produced upon the occasion in question, bearing upon this point, is given in the Appendix subjoined.

struction—the line to Dover not being opened till the year 1844; and so little was the district of country north of their operations then regarded, that they raised a large additional capital for the purpose of making a harbour at Folkestone, constituting Folkestone their limit terminus, and placing Dover on a mere extension.

But this era of restriction is at length destined to have an end. A period has now arrived, when the hitherto neglected interests of North Kent seem to have excited the dormant sympathies of the South-Eastern Directors, and the whole aspect of their affairs begins to exhibit a characteristic change. Suddenly emancipating themselves from the trammels under which they appear to have been previously acting, they all at once begin to feel that their sphere of operation has been too confined—that other districts equally merit their consideration, and that new and enlarged works must be executed to subserve the fulfilment of their new and enlarged designs. After an intimation to the effect that “they might perhaps have successfully advanced a claim to be protected from injurious competition, until a longer time had been afforded for the development of their system,” they go on to observe in their present Statement, that “the Directors have taken a wider and a more liberal, and, as they believe, a more politic view of the subject.” “They are not disposed,” they say, “to raise the plea of vested interest,”—they profess that “they have felt from the first that it would be unsound and impolitic for them to attempt to bring forward any imperfect scheme composed of branches from their existing lines, or other secondary expedients, which, although incomplete in themselves, might yet be sufficient to prevent the execution by other parties of further or improved projects; and that their only true security consisted in identifying their interests thoroughly with those

“ of the public, by providing the best possible communications, and the best possible accommodation, at the lowest possible fares. Acting on these views,” the pamphlet proceeds, “ the Directors instructed Mr. Robert Stephenson to prepare for Parliament the most perfect scheme he could devise for completing an entire system of Railway communication for,” what they are pleased to call “ the South-Eastern district ;” being “ convinced that the time had arrived for the completion of that comprehensive system of which the Company, nine years ago, had laid down the great backbone, and the full development of which had only bided its time.” And how is this now proposed to be accomplished ? By making this “ backbone ” available ? On the contrary, they appear to have broken the back of their original scheme by the weight of capital already laid upon it ; and, instead of using it as the main trunk or conduit for their new schemes, they cast it off altogether from its very commencement, and lay down an entire new line from the metropolis, as distinct from it as the line that has been proposed by the North Kent Company !

And now we would fain ask, when this change in their plans presented itself to their minds ? We have already demonstrated that a North Kent line formed no part of their scheme originally ; did it, then, enter into their contemplation in 1843, when they obtained their Act for making a branch line from Paddock Wood to Maidstone ? Or in 1844, when they obtained another Act for making a line from one of the joints of their “ backbone ” at Ashford, to Canterbury ? Obviously neither ; for their projected line from Hungerford Bridge to Maidstone and Ashford, and their new North Kent line from the Greenwich Railway to Chilham and Canterbury, will render those two lines, for which some hundreds of thousands of pounds have been raised and already expended, utterly useless, so far at least

as their original purpose is concerned. To some more recent period, therefore, this remarkable change in their views must evidently be referred. Let us then see if we cannot solve this intricate question. Let us endeavour to trace these proceedings to their proper source; and we are much mistaken if we do not succeed in referring them to a much more definite period, and to motives very different from those to which the South-Eastern Directors so adroitly lay claim.

In the early part of the year 1844, it became known to some of the parties connected with the South-Eastern Company that the present promoters of the independent North Kent Railway were contemplating the revival of a scheme, which they had projected in 1841, for making a line from the Greenwich Railway to Gravesend, Strood, and Rochester. In consequence, as it may be inferred, of this discovery, a correspondence ensued between the South-Eastern and Croydon Companies, and measures were resolved upon with a view to anticipate such an attempt. It was proposed, in the first instance, to make between them a Railway to Gravesend and Chatham; the avowed object being to prevent other parties from carrying a Railway into North Kent. In a pamphlet subsequently published by the Croydon Company, in explanation of some differences that had arisen with the South-Eastern Company on this subject, it is stated: "It became manifest that some line of Railway communication would be required between London and Chatham; and as it was equally manifest that the promoters of any such line being other than the Croydon or Dover Companies, would have an irresistible temptation to prolong it in the direction of the coast, it could not fail thus to become, to a great extent, a competitor with the Croydon and South-Eastern Railways for the Kentish and continental traffic." This was of so much importance

to the South-Eastern and Croydon Companies, that "in the beginning of the present year (1844) the Directors of the latter sought and obtained an interview with the Directors of the former," and after some deliberation, the two Companies united in the object of projecting the line to Gravesend and Chatham.

It appears that this scheme was not proceeded with; but in the month of June, 1844, the South-Eastern Company intimated to the Croydon Company that they were about to extend the Bricklayers' Arms branch to Gravesend, and from Gravesend to Maidstone, at the same time inviting the co-operation of the Croydon Company in their projected undertaking. On the 25th of June, 1844, the secretary of the South-Eastern Company wrote to the secretary of the Croydon Company, inclosing a copy of the advertisement about to be inserted in the *Times* newspaper, in which letter is the following paragraph: "In reference thereto (namely the advertisement), I am instructed to inform you that the notice embodied therein has not been determined on from any hostile view towards your Company, but solely in protection of the interests of this Company, and also in conformity with an intimation communicated to some one or more members of the Croydon Board, at some interview which has recently taken place between them and a section of this Board on questions of mutual interest." The advertisement was as follows:—

"London to Gravesend and Maidstone, East and West End lines.

"The Dover Company have directed Mr. R. Stephenson to survey the country between their Bricklayers' Arms branch and Gravesend, and between Gravesend and Maidstone, and will apply to Parliament in the ensuing Sessions for powers to make a line in pursuance thereof. The line will traverse the most favourable country, and

“ will command both the London-bridge and West End
 “ Termini of the Dover Company.

“ By order of the Board,

“ JOHN WHITEHEAD, Secretary.

“ 25th June, 1844.”

Here, then, we have incontrovertible evidence that even in the month of June, 1844, the South-Eastern Directors had not yet attained the true climax of their views ; “ that they “ had not then felt that it would be unsound and impolitic “ to attempt to bring forward any imperfect scheme *composed of branches from their existing lines* ;” that they had not yet discovered that the time had arrived for the completion of that “ comprehensive system ” so ostentatiously held up as the eventual development of their original designs.

On the 18th of July following, the prospectus for the Independent North Kent scheme, then called the “ London, “ Chatham, and North Kent Railway,” was published, proposing the formation of a Company for the construction of a Railway to Gravesend, Rochester, Chatham, Ramsgate, and Margate. This announcement immediately led to a change of views on the part of the South-Eastern and Croydon Companies ; the abandonment of the Gravesend and Maidstone scheme was at once determined upon, and, in pursuance of a more extended plan, the necessity for which was now becoming apparent, the South-Eastern Company, in the month of August, announced their intention to make a North Kent line through Gravesend, Sittingbourne, Faversham, and Chilham, to a point near Canterbury. This announcement appears to have occasioned the dissatisfaction of the Croydon Directors, and finally led to the publication of the correspondence between the two companies.

The Independent North Kent line of last Session (the Ramsgate and Margate Junction having been abandoned) ended at Canterbury, at a point whence it might be easily extended to Dover—the South-Eastern North Kent line of the same Session terminated at Chilham, near Canterbury, by a junction with their Ashford, Canterbury, and Ramsgate line. The North Kent line of the present Session is carried on to Dover and to Deal; and lo! the South-Eastern North Kent line is also carried on from Canterbury to Dover; thus completing an entirely new line parallel, and competing with their already established South-Eastern speculation from end to end.

And now, we ask, will any one believe that all these movements have resulted from any general design connected with the original formation of their plan for a South-Eastern Railway? Is it not perfectly clear that their ruling principle throughout has been, as avowed by themselves in their communications with the Croydon Board, purely that of protection and defence; and that their recently projected operations in North Kent, so far from having constituted a part of their primitive and proper speculation, never entered into their intentions till they were forced upon them by the unexpected scheme of their opponents?

II. Having thus, we trust, satisfactorily disposed of the main grounds upon which the Directors of the South-Eastern Company, in their "Statement," appear to rest their claims for the construction of the North Kent line, we go on to examine the second of the pleas, by reference to which they endeavour to sustain their pretensions—namely, the saving of expense by the adoption of their plans; upon which, however, as little is said by them, but little remains to be said in reply.

The whole of this plea is, in fact, confined to the ground

of the actual possession of certain portions of line—that is to say, the Bricklayers' Arms branch, the Greenwich Railway, and their recently acquired interest in the Thames and Medway Canal Railway, together with their terminus at London Bridge—all of which would be available for the new North Kent Railway, supposing the construction of it was confided to themselves.

This important plea is set out in an appeal to Parliament for protection, upon the ground that the outlay by which they acquired their present position in respect of these presumed advantages was incurred under its sanction, and in full confidence that such a competition as they now deprecate would not be allowed. "If competition," say they, "had been the object of Parliament, it never would have sanctioned measures which have a manifest tendency to defeat competition, and which in point of fact go far towards rendering its existence impossible;" an important admission, and calculated to throw no small degree of light upon the proceedings of the South-Eastern Company in respect of these new acquisitions, since the apprehensions of an independent North Kent line had been awakened. And then they go on to specify in what this portentous saving consists, which is to render their new line to Dover so much more preferable a speculation than that proposed by their competitors. "It cannot be conceived," they continue, "that Parliament would sanction the waste of capital and *wanton* interference with private property that would be now required to construct a nominally independent North Kent line from London to Canterbury, when it can be shewn that 17 (!) miles of such a line, including a Metropolitan terminus, would be saved by the adoption of lines already constructed, or whose construction is necessary for other objects under the arrangements of the South-Eastern Company."

It is disagreeable to have occasion to recur again to the charge of mystification against the Directors of the South-Eastern Company, or the author of the "Statement" put forth under their sanction; but really there is in the statement of this, their other ground of argument, something so exceedingly like it, that it is only the consideration of the high respectability of the parties that makes it possible to avoid the inference. Would not any one, upon reading this statement, believe that the Directors of the South-Eastern Railway intended to represent, that by the adoption of their line in preference to that of their competitors, there would be a saving of 17 miles of Railway in respect of the portions which they have already or shall otherwise have occasion to lay down? And yet they really say no such thing; nor do they mean to *say* it, because in fact it would not be true. What the Directors assert is indeed true—namely, that by the adoption of their proposals, 17 miles of *their* line would be saved; and they might with equal correctness, and upon the same grounds, have added, that by the adoption of their old line as it now stands there would be a saving of no less than the whole distance from London to Dover. But the question is not, how much of *their* line would be saved, but how much of the *newly projected line of their competitors*, compared with that which they propose to construct in its stead? In other words, what is the difference between the *two* lines which would be saved by the adoption of the one for which they are contending, in the portions that would be common to it and the lines they already possess? And this is not 17 miles, but only a fraction more than half, as a slight examination will suffice to shew.

The entire length of the independent North Kent line from Southwark Bridge to Dover is 73 miles. The South-Eastern North Kent line, according to the details given in

the "Statement" of the Directors, is 79 miles and three furlongs (nearly $79\frac{1}{4}$ miles) from Waterloo Bridge. Here then is at once a deduction of six miles and a half, by which the question of *saving* becomes reduced to a matter of $10\frac{1}{4}$ miles at the very outset. Then it is to be observed that whatever may have been the intentions of the Directors at the time of publishing their "Statement," *according to the plans lodged for Parliament*, not a yard of the Bricklayers' Arms branch, which is included in the calculation of this important saving, is to be appropriated to the new North Kent line. And this brings the difference to a question of nine miles.

But, before we conclude upon this head, it is necessary that we should first ascertain what these nine miles are really worth in the argument with reference to which they are adduced.

So far as the interests of the public are concerned, it certainly is a question deserving of consideration, whether, by the employment of lines already constructed, an equal amount of accommodation can be made to accrue, as would result from the adoption of new and independent lines to be executed at an additional cost; since the expense of any work of this nature must exercise a material influence upon the price at which that accommodation can be obtained. If, however, a Company, *for the purpose of attaining the advantage* which the possession of any quantity of completed works may be thought to confer upon them in competition with others, shall be found *to have involved themselves* in an outlay that more than covers the legitimate cost of construction, the reasoning fails, and the instrument of their advantage becomes a weapon in the hands of their opponents.

At what cost, then, we have yet to inquire, have

these nine miles of Railway been procured? In the first place, the Greenwich Railway, which constitutes three miles out of the nine, is obtained at the charge of £35,000 per annum, in the form of rent, increasing yearly at the rate of £1,000, until it reaches the sum of £45,000 per annum; which sum, at twenty-five years' purchase, or four per cent., is equivalent to a principal sum of £1,125,000; *nearly one-third of the entire capital* required for the construction of the *whole independent North Kent* line from Southwark Bridge to Dover!

For the Thames and Medway Canal and Railway, it is stated they are to pay the sum of £330,000, and another sum of £100,000 will, it is understood, be required to fill up the canal and adapt the whole so as to admit of its being a portion of their North Kent scheme. These five and a half miles will, therefore, have been obtained at a cost of nearly £80,000 per mile; *being just three times the cost at which* the same amount of new line would have been constructed!

Nor have the South-Eastern Company the plea that they have been allowed to involve themselves in these preposterous liabilities involuntarily, and in no expectation of competing projects; for the purchase of the Greenwich Railway was made after the North Kent Company had actually opened a negotiation for the use of it as an adjunct to their own line (and in fact it may be concluded, with the sole view of shutting them out from a London terminus); and the arrangements with the Thames and Medway Canal Company have been entirely effected since the last Session of Parliament, and in all probability during the very period when the "Statement" now before us was under consideration. Upon the whole, therefore, neither as an argument of economy nor of justice, can the Direc-

tors of the South-Eastern Company derive any advantage from the possession of those works in competition with the promoters of the North Kent line.

III. The third ground upon which the Directors of the South-Eastern Railway found their claim to the construction of the new North Kent line, is a superior capability of working it, by reason of their possession of the other portions of the "great South-Eastern system;" a maxim, from the truth of which we beg, in the present instance, entirely to dissent.

The Directors of the South-Eastern Company would, indeed, doubtless manage the matter so as to conduce to their *own* advantage much more efficaciously if they had the conduct of both Railways, than they could if they had the conduct of one; but only in the proportion in which they made the interests of the one Railway subservient to the interests of the other. But it is in this very subserviency that the interest of the Company would be really opposed to that of the public. The circumstances of the two lines—the South-Eastern and the North Kent—are, in fact, essentially incompatible with such a management. The country through which the latter is proposed to pass is populous and productive all throughout. The district especially affected by the former is in a great degree the reverse. The business of the South-Eastern Railway is principally what is called in parliamentary language "a through traffic." An independent Company, in the management of a North Kent line, would have ample scope, and would, moreover, find it their particular interest to combine cheapness with celerity; whereas the South-Eastern Company, by pursuing such a course, would be withdrawing altogether the traffic from their original line. What course the Directors of the South-Eastern Company would really pursue in the event of their obtaining the con-

struction of the new North Kent line, we are not indeed left to conjecture. In the representation of their views before the parliamentary committee last Session, they distinctly avowed that it was their intention to use the South-Eastern Railway for the purpose of quick travelling and express trains; involving the necessary inference that the North Kent line was to be worked by slow trains and frequent stoppages.

Again, what is to be the effect of this combination as between the respective shareholders? Let us suppose that a capital of £3,000,000 shall be laid out in the execution of the North Kent Railway; and it may be assumed that a fair return will be obtained under any management from the traffic incidental to such a line. Will the parties who shall hold shares in this capital admit the shareholders representing the £6,800,000, which constitutes the virtual capital of the South-Eastern, to a participation in those returns? Certainly not of their own free will; and it is hardly to be supposed that Parliament will interfere to enforce such an amalgamation.

In every point of view, therefore, considered, the combination of the two Railways under one management cannot fail to be prejudicial in the highest degree to the interests—of the public in general, with respect to both lines, and of the more immediately interested parties, with respect to that line from which the greatest amount of profits might be expected to accrue. Now, as there can be little doubt that, of the two competing lines, the North Kent and the South-Eastern, the former is that to which the superiority in a commercial point of view is certain to be ascribed, it is upon this line and its connections that the evil consequences of the threatened union would eventually descend. The South-Eastern Company might indeed benefit, or rather *avoid damage*, by the conjunction. But assuredly no

greater detriment could befall the interests of North Kent, as well as of the North Kent Railway, than to hand them over to the control of a less prosperous competitor, whose advantage from the alliance would only be the measure of their loss.

IV. We have now come to the last of the particular advantages to which the Directors of the South-Eastern Company lay claim in their competition with the promoters of the North Kent line. Already established as a Company, with a large "paid-up capital," and a "gross income of £260,000 per annum," arising from their executed lines, they contend that they are in a situation to offer a better security and guarantee for the due completion and management of the contemplated undertaking than a new Company, whose only tangible security consists of a parliamentary deposit, can possibly afford.

This is, indeed, a very specious argument; but, like the rest, which we have already discussed, its main force depends upon its not being thoroughly investigated. It is, in fact, but another specimen of the same *mystification* upon which we have already had occasion to comment. The Directors do not, indeed, state any thing but what is perfectly true; but they certainly omit to state *that*, by reference to which the insufficiency of the whole argument would be at once exposed.

The Directors state that they have a "paid-up capital" of £5,000,000, and a gross income accruing from their works of about £260,000 per annum. But they do not state that this capital, having been raised at different rates of discount, represents an actual charge of about £6,300,000, *the whole of which has been spent*, and that of the gross amount of this accruing income, there is not available so much as the sum of £37,000 to answer the claims of those by whom this capital has been subscribed.

To verify this, we need not travel beyond their own "Statement;" although, from the obscurity in which the principal details have been so dexterously shrouded, it requires some little investigation to arrive at the true results. They admit that the paid-up shares, instead of realizing their nominal value of £50 each, only produced upon an average £32, or somewhat less than two-thirds of the amount; indicating, therefore, a discount of about £30 per cent. upon their whole capital. So that the actual sum paid up represents an effective claim upon the concern to the extent of about £6,300,000.

They admit, moreover, that of their "paid-up" capital, as they reckon it, the sum of £1,600,000 has been raised upon mortgage of their works; and we have already seen that their contract with the Greenwich Railway Company subjects them to a fixed charge, in the way of rent, increasing gradually from £37,000 to £45,000 per annum. To these items have yet to be added the amount of the tolls paid to the Croydon Railway Company, which for the half-year ending 31st January, 1845 (as it appears from their printed account), was £8,972. 1s. 4d.; and the rent to the Whitstable Company for the use of their line, for which, as we have not the particulars, we are unable to assign a specific amount.

Let us, then, see in what position these several charges place them in respect of their "gross income" of £260,000 per annum, which is to represent the value of the security which they have to offer for the due performance of their undertakings, in case they should have the preference over their opponents. The following calculation will shew at once how this stands:—

Gross revenue as stated by the Directors ...	£260,000
1st. Deduct for working expenses £40 per cent.	104,000
	<hr/> £156,000
2nd. Deduct mean of the rent to the Greenwich Railway Company	40,000
	<hr/> £116,000
3rd. Deduct toll to Croydon Company for the year, say	15,000
	<hr/> £101,000
4th. Deduct interest upon mortgage debt, say at £4 per cent.	64,000
	<hr/>
Balance remaining	£37,000
	<hr/>

So that, after deducting the necessary expenses and charges already secured, there remains only £37,000, subject to the further charge of the rent to the Whitstable Company, to satisfy all contingencies and pay the dividends upon the capital paid up. And when, finally, we have laid upon it the further incumbrance of £620,000, which they have yet to raise to enable them to complete the works, for which they have already obtained parliamentary powers, what, we may fairly ask, is the value of the guarantee or security they have to offer for the construction of the new works they have it in view to undertake, over and above that which any new and independent Company could equally afford?

If, indeed, this "paid-up" capital of £5,000,000 had been remaining in the hands of the Directors, and applicable to the execution of their newly-projected lines, it would be intelligible in what manner they might be regarded as

having a superior security to offer compared with what a new Company might be able to command. But, when it is considered that all this capital has been spent in the execution of works which can scarcely pay (upon the highest calculation) a dividend of one per cent., it is impossible even to conjecture wherein consists any amount of security beyond what any Company might be supposed to possess. They, like any new Company, must raise the capital required for their new works by the creation of new shares; and it is only in so far as their existing works would be available or sufficient security for this new capital, that they could be considered to draw any advantage from the possession of them, in competition with other parties. But their existing works, so far from being sufficient security for *new* sums, do not even pay the claims upon them in respect of the *old*.

The truth is, that their existing works, so far from increasing their security in competition with others for the construction of the new lines, act the other way. The immense amount of capital already laid upon them is an actual clog upon the Company, which must operate at every step to impede their progress in any attempt to contend with new, and, consequently, unencumbered competitors. If, for example, to pay off their mortgages and complete their existing line of 180 miles, they have been obliged to raise their money by issuing £50 shares at £80, £82, and £88. 6s. 8d. (as they themselves acknowledge they have in their own "Statement"), at what rate must they pay to obtain the *four or five millions* required for their 200 miles of new schemes?

Upon the review of the whole case, is it not, then, apparent that a new Company, coming in without any of this incumbrance, and having only their intended works to provide for, and a free and populous district, such as North

Kent, to which to look for their returns, will have a much better claim to the confidence of the country, and a better guarantee to offer in their subscribed capital, than an established Company with such a dead-weight about their necks, having other speculations to support, and in addition, a comparatively poor district to supply, and who, after all, have only, like their competitors, new subscribers to look to for the new capital required?

And now we trust we have satisfactorily shewn, that, upon each of the grounds upon which the Directors of the South-Eastern assume to found their title to preference over their opponents, they have not only entirely failed to substantiate their position, but to a very considerable extent make out a most favourable case for those against whom their arguments are directed.

Having satisfied these points, which we have selected as the most important in the case, there are only one or two observations more which we deem necessary to advance for the purpose of obviating the effect of the unjust insinuations which the Directors of the South-Eastern Company have thought proper to throw out in their "Statement" against the promoters of the new line, and of placing the advantages of that scheme in their true and proper light.

The Directors of the South-Eastern Company allege that "there is nothing in the position of the North Kent line to exempt it from the general law (of amalgamation), which," they observe, "has prevailed in other instances; but, on the contrary, many peculiar circumstances which must inevitably make it for the interest of the Company, sanctioned as independent, to sell itself to the rival, by whom the greater portion of the field was already pre-occupied."

But this allegation is founded upon a principle of reasoning which has no bearing upon the present case. In

most of the instances in which an amalgamation has taken place, the lines have been specially circumstanced to conduce to such a result ; either the one being a branch line from another, as in the cases of the Brighton and Chichester, and Brighton and Hastings, in connection with the London and Brighton ; or else both Railways being in continuation of the same line, as in the case of the London and Birmingham with the Grand Junction—neither of which forms any precedent for the amalgamation of the South-Eastern and North Kent. Entirely distinct from end to end, and completely independent the one of the other, there could be no more reason for the promoters of the North Kent line to desire an amalgamation with the South-Eastern Company (even if its financial position were not so unfavourable as it is), than for the Great Western to affect a like coalition with the South-Western, or the South-Eastern itself with the Brighton Company, linked as they are already by a common interest in a common portion of their line. A desire to amalgamate could only, in this instance, arise from the apprehension of competition. But what cause could the North Kent line have to fear the South-Eastern ? To Woolwich, to Gravesend, to Chatham, and Rochester, the North Kent alone would afford accommodation. To Canterbury the line would be more than twenty miles shorter than the South-Eastern, and considerably shorter to Deal and Dover likewise. As to the “competition from the river,” to which the “Statement” refers, we are really unable to see what it has to do with the question. *That* competition would assuredly not be avoided by any union with the South-Eastern Company ; for, sweeping as appear to be their claims to a monopoly of steam communication throughout Kent, they have not *yet*, so far as we have heard, been bold enough to claim from Parliament the control of all the steamers upon the Thames.

Enough has, however, we trust, already appeared to shew how slight the probability of any such result. The promoters of the new North Kent are not, as the Directors of the South-Eastern Company would imply, at all likely to act a part more befitting a junto of needy adventurers than a Company of gentlemen, who have embarked in a great, and, as they have every reason to believe, a remunerative undertaking. They have pledged themselves to carry out their line, and, most assuredly, they will redeem the pledge, if the assent of Parliament shall sanction their proposals. The Directors of the South-Eastern Company must not, therefore, flatter themselves that they can buy off their opponents in this instance. The promoters of the North Kent line are not insensible to the magnitude of the contest before them; but they will not attempt to avoid it by any dishonourable compromise.

The Directors of the South-Eastern Company in the "Statement" before us, dwell with much complacency upon the sincerity of their present intentions towards North Kent; and, in evidence of this sincerity, as well as in proof of the greater security which the public would have that the contemplated works would be more speedily executed under their management than that of their opponents, refer with a great deal of confidence to an offer, which they assume to have made to the Board of Trade last year, to bind themselves to the immediate fulfilment of their undertakings by a provision in their several Acts, to the effect "that they should pay no dividend until such new works (as they then had it in view to accomplish) were completed." "This provision," they incontinently add, "*was inserted in their Acts of last Session;*" and they further declare "the Company are willing to insert it again in the ensuing Session."

Had it been possible to regard these allusions as limited

in their object and consequences entirely to the parties by whom they had been advanced, we should have been content to have left them to the undisturbed fulfilment of their design. Appearing, however, as they certainly do, whether in purpose or effect, to disparage the security and impeach the sincerity of their opponents, we are compelled, with all due deference, to observe, that both the argument and the evidence by which it is supported are equally misplaced.

Whatever importance the Directors of the South-Eastern Company may attach to this proposal, we cannot help thinking that the public will rather incline with us to the opinion that it savours much more of a consciousness of not being entitled to that confidence in their sincerity to which they desire to lay claim, than of any real wish to promote the contemplated undertakings. The best guarantee for the due execution of great works of the kind in question, and one which has hitherto been ever found sufficient for all the purposes required, is the interest of the parties by whom they are undertaken. If the Directors of the South-Eastern Company did not feel that there was something in their new position calculated to raise the impression that their contemplated works were really at variance with their present interests, they would not, we conceive, have thought it requisite to have recourse to a security which it has never yet been found necessary to offer or to exact.

But the full value of this security will be best understood from the fact which yet remains to be stated; namely, that notwithstanding the reality of the proposal so confidently insisted upon, and, still more, notwithstanding the direct and positive assertion that such proposal was carried into effect, and that the "provision in question" *was inserted in their Acts* of last Session, there is *not* in any of the Acts obtained by the South-Eastern Company

last year for the execution of the works to which their offer applied, *any such provision or any thing like it anywhere to be found!** Where, then, is the "sincerity," we feel ourselves fairly entitled to ask, evinced in these proceedings to which the Directors of the South-Eastern Company so confidently refer, except indeed it be the sincerity of their desire to get rid of their opponents? And which security is most likely to prove an acceptable guarantee to the public for the due fulfilment of the contemplated undertakings, the security founded upon a provision reluctantly tendered, tacitly withdrawn, and afterwards surreptitiously attributed, or the security founded upon the fact that it would be the interest of the parties to execute the line as fast and render it as productive as possible, a security not counterbalanced, as in the case of the South-Eastern Company, by any conflicting interests?

With respect to the particular merits of the new North Kent Scheme, they will be more properly discussed before the legislative tribunal to which they are now about to be submitted. It will be sufficient here to remark, in reply to the observations in the "Statement" of the South-Eastern Directors, that the North Kent Company *have* an independent metropolitan Terminus, and in a position more central than, and far preferable to, the already crowded Terminus of

* It is true that in one Act of last Session, which was obtained not by the South-Eastern Railway Company, but by the Brighton, Lewes, and Hastings Railway Company, for making a line from Ashford to Hastings, and which enabled the Brighton Company to make and accept a transfer of the powers conferred by the Act, a clause was inserted prohibiting the South-Eastern Company, if such a transfer were made, from paying any dividend unless the Railway from Ashford to Hastings were completed within three years (not from the date of the Act, but from the date of the transfer). As, however, the South-Eastern Company was not compelled to accept the transfer, and as, even if accepted, it might be made at an indefinite period after the passing of the Act, this provision may be said to amount to nothing.

the united South-Eastern, Croydon, Brighton, and Greenwich Railways.

The North Kent will have stations at either end of Southwark-bridge, which will afford access and accommodation to the inhabitants on both sides of the river, and bring both passengers and traffic to points more nearly in communication with the other Railway Termini and the great public offices in London, than any other project of the like description which has yet been proposed.

The Committee of Management have also made arrangements with the South-Western Company to have the use of their station at Waterloo Bridge, by which the North Kent line will be placed in direct communication with Southampton, Portsmouth, and the other districts at present served by that Company.

Looking to its own particular province, the North Kent line, commencing in London, proceeds by the most direct route to Woolwich, Gravesend, Rochester, Chatham, Canterbury, Dover, and Deal, bringing the extreme points of the line within a distance of about seventy-three miles; while, through the medium of its branches to Maidstone and Sheerness, it will be the means of placing all the principal towns of North Kent, including the great naval and military establishments in the county, in immediate communication with each other, with the metropolis, and with the coast.

That the line itself is a well-selected one is proved by the fact of the South-Eastern Company having chosen to adopt it, though at the cost of abandoning, as it may be said, their old line, rather than suffer the country to be supplied from an independent source.

The North Kent Company, whatever the Directors of the South-Eastern may insinuate, do not seek nor desire to influence the public by "promises" more easily made "on

“paper” than “carried out in practice.” They do not offer to carry their line to every man’s door ; but what they do undertake they will hold themselves bound to accomplish. Their Bill is drawn with that regard to the public interests which might be expected from parties who are sensible that they have only the public favour to look to for success. Two third-class trains per day each way are provided for ; and, which is no less for the advantage of the Company than of the public, the electric telegraph is required to be furnished as a means of correspondence or communication throughout their lines.

The promoters of the North Kent Company brought out their scheme originally upon the principle of frequent trains and low fares. Their determination from the commencement has ever been, to give the utmost possible accommodation at the lowest possible charges. By this determination they are ready to abide ; and as they come forward unfettered by any conflicting obligations, with nothing to look *to* but the benefit of the district, and nothing to look *for* but a fair return upon the capital invested, they have every reason to hope that they shall be able to carry out these principles to an extent that shall give the inhabitants of North Kent a substantial and abiding interest in this great national undertaking.

A P P E N D I X.

EXTRACTS from MINUTES of EVIDENCE, taken before the
Committee on the London and Dover (South-Eastern)
Railway Bill, in Session of 1836.

Mr. Henry Robinson Palmer, Engineer of the Line.

Examination in Chief.

Q. When were you first desired by the South-Eastern Railway to make a survey for the present undertaking?—

A. I think it is upwards of twelve months since.

Q. Did you then avail yourself of your knowledge of the country to investigate the various lines for the purpose of attaining the object of getting from London to Dover?

—A. Not on that particular occasion; I was instructed to ascertain such a line between London and Dover as would also form part of a communication between London and Brighton.

Q. At that time was it the intention of the Company to have a line to Brighton also, as well as to Dover, branching off at some given point?—A. Yes, it was.

Q. The line to Brighton is not now intended to be adopted?—A. No; on account of the competitions of the other lines, it was thought advisable to abandon that portion of the survey.

Q. Without any reference whatever to the line to Brighton, which line do you think to be most proper for

a Railway from London to Dover, speaking from your experience and continued surveys of the county of Kent?—

A. The line that is now proposed appears to me to have the least difficulties between the two extremes.

* * * * *

Cross-examination.

Q. I understand you to have said you were originally employed to survey a line to Brighton, with a communication from that line to Dover?—*A.* Yes; or I believe I expressed it, a line to Dover, having also a communication to Brighton.

Q. With the original intention of a line to Brighton, with a branch to Dover; or was Dover the principal object when you were employed first to survey?—*A.* As nearly as I recollect, Dover was the point first taken.

Q. Are you quite sure of that?—*A.* I am not; I really do not recollect it; that is the feeling I have; the two together.

Q. It was a combined plan?—*A.* Yes.

Q. Did you survey this line to Dover, with reference to this combined object?—*A.* Yes, I did.

Q. Now suppose you had been employed merely to survey, in order to form a line between London and Dover, in your judgment should you have selected this as the line, with a view to that object only?—*A.* Had I heard of no combination whatever with Brighton; had I been merely instructed to point out a line between London and Dover, I should doubt very much whether I should have taken this course, because I was not aware of the facilities afforded in that direction that I have since become acquainted with.

Q. When you say that you were not then acquainted with the facilities in "that direction," in what direction do you

mean?—*A.* The facilities through the Weald of Kent; I must say, it is a course that would not have occurred to me, taking the southerly direction, as I have done: in the first instance, *I should have aimed at a more direct line.*

Q. As an integral measure unconnected with any other object, as I understand you, you would not probably have selected this line as the line from London to Dover?—*A.* I doubt whether the thought would have occurred to me; *and now I further recollect, that that course to Dover was pointed out by another person.*

Q. What course?—*A.* This course.

Q. Was it pointed out by that other person, in connection with the original line going to Dover and Brighton also?—*A.* I understand it to be so.

Q. Then you were driven out of the Brighton line by the competition there, and fell back on your single line to Dover, in that direction?—*A.* It is a fact, that the branch to Brighton was abandoned for this session, and that is all that remains.

Q. This is the residue of the original project?—*A.* This is the residue of the original project.

Q. You are about to form a line of Railway from London to Dover; in your judgment, looking to that object only, is it or not a desirable thing to take the shortest cut to your object?—*A.* *If the object had been merely the connection of London and Dover,* I should say that the line which (supposing all to be equally cheap)—that line which was shortest would, of course, be best.

* * * * *

On further cross-examination.

Q. You were instructed to ascertain whether a pass could be made at Oxted; were not your instructions to see if a Railroad could be made to Dover, communicating

with Brighton?—*A.* Undoubtedly I had such instructions, and I attempted to form a line to Dover, and another to Brighton, having one common course to a certain distance, and I was very much astonished when I found—having made that attempt, in which I was very ready to make something like a sacrifice on the part of Dover to Brighton—I was surprised to find I had made no sacrifice, but that I had still got the best possible line of road.

* * * * *

Re-examination for the Bill.

Q. Now, Mr. Palmer, after having your attention most distinctly called as to the time you adopted this line by Oxted, passing through the Weald of Kent to Dover, I ask you whether you are, at this moment, aware (without any reference whatever to a road to Brighton) of any road which offers such facilities, all points being considered, for a Railroad to Dover?—*A.* I have no hesitation whatever in stating—and that I must state, with some considerable confidence, from the number of lines I have examined through the county—that, considering all the circumstances existing, and all the purposes to be fulfilled by a Railway, that the line which is now before Parliament, called the South-Eastern, has considerable advantages over any other; and that if I were again to be called upon to find a line between London and Dover, I should recommend the same, with only such little modifications as are within our power now of 100 yards.

Mr. William Alexander Provis, an Engineer, called on behalf of the Bill.

* * * * *

On re-examination for the Bill.

Q. You were asked some questions about the towns and villages through which the line should pass; don't you think

our South-Eastern line through the Weald of Kent embraces more of the towns and villages, to the south of the Weald, than any line in a more northerly direction?—
A. Certainly.

Q. Because if you went in a more northerly direction, there would be a range of hills between you and the Weald?—*A.* Yes.

A. If you did not go to the north of the chalk hills, you would have the sand?—*A.* The chalk ridge is quite sufficient; there is a range of sand-hills as well, of inferior magnitude.

Q. So that, if you do not have chalk, you have another steep ridge between you and the Weald?—*A.* Yes.

* * * * *

Q. You said yesterday that without an increase of distance, you thought there was no better line than the proposed line?—*A.* I did say so.

Q. Did you make that assertion from having made a survey of the whole county, with a view of finding the best line, or did you say it only from a correct survey you have taken of this identical line?—*A.* I have walked over and rode over a great deal of the county, particularly that part which is to the north of the line now called the South-Eastern Railway. I satisfied myself, from the great altitude of the chalk ridges, and from the depths of the intervening valleys, that no line north of the chalk ridge could be carried into effect without having serious difficulties to encounter.

Captain John Watson Pringle, Officer of Engineers (a Promoter of the South-Eastern Line).

Q. How early did you begin to think of a railroad from London to Dover?—*A.* In the year 1834 I had the plea-

sure to be acquainted with Mr. Fearon and some other gentlemen.

Q. Did you upon that, in company with Mr. Greenough and other friends, go over the county between London and Dover, beginning with the line nearest the river, to ascertain a line nearest the Thames?—A. In examining those plans they looked on me as an engineer capable of judging; I objected completely to the one passing from near Gravesend to Maidstone.

Q. Then, in the first instance, they laid before you a plan that had been taken of a line that proceeded in that direction?—A. *Yes, from near Gravesend to Maidstone; it is from Greenhithe to Hythe, running across the chalk ridge, and I condemned it, and I refused to have any thing to do with it while they meant to go on with that line.*

Q. Did you, in consequence of that, examine the country to see in what direction you could find a better line?—A. In consequence of which Mr. Decimus Burton and Mr. Greenough, of the Royal Society, rode over all the country between Ravensbourne and Farnborough up to Otford, and came to what we thought a pretty decent-looking level up the valley of Ravensbourne, up the valley through a Mr. Ward's property and Pratts Bottom and to Otford; that section I directed to be taken, of which I have a copy, if the committee wish to see it.

Q. Did that section turn out satisfactorily?—A. *That section turned out bad.*

Q. Did you, in consequence of that, try again?—A. *In consequence of that, I suggested going still further west, always looking out for a Dover line, and looking at the chalk ridge which is opposite to there (pointing to the plan) and the green sand, the next pass is Godstone, and I thought that pretty favourable, and Merstham is favourable, and they were both directed to be levelled; but find-*

ing ourselves there, I suggested that Lewes and Brighton should be combined, as we were very nearly twenty-five miles south in that direction.

Q. You found yourselves there, but you were looking out solely for a Dover line?—*A.* Yes, solely for a Dover line.

* * * * *

Q. Did you examine the other line of country ; the one which is to the north of that district which you personally examined?—*A.* When I was at Dover lately, and at Canterbury, and Sandwich and Deal, I took every opportunity of looking at the country with that view, to see if there was a line between Dover, Canterbury, Folkestone, and Hythe and Rochester ; but I considered that the difficulty was so great, between Gravesend and the valley of the Medway, *that I looked upon that as quite enough to settle the question.*

* * * * *

By the Committee.—*Q.* Be so good as to state what are those evident advantages the Weald offers.—*A.* A long and level line, nearly straight. There is a triangle formed by Tunbridge, Rochester, and Dartford, and this sand ridge is high and difficult ; it is a broken country, and we have sections that shew it is more expensive than making a line here (pointing to the Ordnance Map) ; the chalk ridges are very high.

By Mr. Boileau.—*Q.* State in addition to the advantages which you mentioned about the level line, what others there are in the Weald of Kent.—*A.* The Weald of Kent is a complete level from the bottom of the sand ridge down to Tenterden.

Q. Does not the frequency of intercourse between the two termini, and the number of passengers, constitute a

large element in Railways?—*A.* For that reason we came to Ashford to have a branch to Canterbury.

Q. Do you suppose, by going through the Weald of Kent, a greater number of passengers would be obtained from London to Dover than by any other line?—*A.* I consider the two termini (the continent of Europe and London) as the essential points.

* * * * *

Q. Would not the line that goes nearer to Rochester be more favourable for a branch to Rochester than that more distant line?—*A.* *We don't pretend to make a branch to Rochester ; we should be glad if Rochester would make a branch to us.*

THE END.

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MESSRS. JONES, COOKE and CO., Stock and Share Agents, after many solicitations from capitalists in different parts of the country, and for the general accommodation of speculators and holders of shares, have opened Books at their offices for Registering the names and prices of the different shares for sale and purchase, and they particularly call the attention of parties desirous of purchasing or selling shares, to the convenience of registering the same—no charge being made for so doing until an actual purchase or sale takes place. To persons seeking information as to the share-market, they will at all times be happy to supply the same.
16, Old Broad Street, London.

RAILWAYS.

PARTIES contemplating Purchases or Sales of Railway Shares at the present prices, may obtain detailed information as to their existing condition and future probable results, upon application at the offices of **THOMAS ALLSOP**, 34, Cornhill, and 280, Regent Street. **T. ALLSOP** will also furnish persons seeking permanent investments with data which, by judicious comparison, may avert the loss and even ruin which have frequently attended purchases made upon slight information, or upon erroneous anticipation, both as to cost and charges made at the outset of these undertakings.

The price of the great lines of railroad is not alone a grand criterion of value, which must be sought, as regards permanent investment, on far different grounds. The purchases made at present may be referred chiefly to local or personal feeling, and to the general importance or estimation of the particular undertaking, not to its real worth as compared to its price; and to these points, as constituting the best tests of value, **T. ALLSOP** has directed particular attention.

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THE FUNDS, SHARES, and other SECURITIES.—Speculations in the rise and fall of Stocks, Shares, &c., limited to a small loss, in comparison to the chances of a large profit. The daily fluctuations in funds and shares afford a great opportunity to derive large profits: the option of receiving or delivering any amount, at a given price, on a fixed day, may be secured upon a limited deposit.

The recent fluctuations in Spanish, Mexican, and Columbian Stocks, also in various descriptions of railroad shares, are sufficient proofs of the advantages to be derived from the above-mentioned safe system of speculation.

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MESSRS. BAUGHAN and CO., having a perfect knowledge of all the *financial arrangements of Foreign States*, and the existing conditions and probable results of *railway shares*, are enabled to *furnish detailed information and data*, which may be relied upon, to all parties seeking permanent investments. Messrs. B. and Co. buy and sell *English and Foreign railway shares* of every description at the different prices of the day. *The lists of prices kept at the offices.* Attendance from 11 till 2.

**RAILWAY SHARES, ETC., ETC., BY AUCTION.
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ENCOURAGED by the recent increase of business in the sale and transfer of shares in the various public Companies, British and Foreign, and acting under the advice of friends and capitalists, Messrs. LAMOND and Co., licensed auctioneers, have deemed the additional occupation thus created, together with the abolition of the auction duties, a fit opportunity for opening a separate and independent practice, to which they have determined to devote their undivided attention, declining all other business for this express purpose, viz. :—

“The sale by auction of shares in railways, British and Foreign; Assurance, Mining, Cemetery and Canal Companies; Joint Stock Banks; Debentures, Bonds, &c., &c.—in short, of every description of interest connected with the numerous public Companies formed and now forming in the commercial world.

In arriving at this determination, it will be the anxious desire of Messrs. Lamond and Co. to give every information and satisfaction to their friends and the public, and looking at the probable magnitude of operations yielding adequate remuneration, they have resolved to adopt a low scale of *ad valorem* charge, by way of commission; and where sales are not effected, a small fee (merely sufficient to cover the expenses of printing, advertising, &c., &c.) for putting up the lots.

To avoid any misunderstanding a deposit of 10 per cent. will be required on all purchases at the hammer, unless the same be effected through Bankers, Members of the Stock Exchange, or parties well known to the Auctioneers; and a settlement of the remainder of the purchase-money must in every case be made in the course of the following day, during the usual hours of business, or the sale will be void and the deposit forfeited, except where special transfers are required, and to such all possible expedition will be given.

As all scrip and share certificates must be deposited for examination at least one day previously to their being offered to public competition, Messrs. Masterman and Co., Bankers, Nicholas Lane, and Messrs. Ransom and Co., Bankers, Pall Mall East, London, have been pleased to allow reference to be made to them, in regard to the respectability of the firm of Lamond and Co.

Their sales are held every Tuesday and Friday, in their Rooms at the under-mentioned Hall, at two o'clock precisely, to which place letters and orders containing instructions are respectfully requested to be addressed, and where one or more of the partners will be always in attendance to be conferred with, if required; and advices of the operations of the day will be forwarded by the first post after each day's sale, and the proceeds paid according to their correspondents' intentions.

Messrs. Lamond and Co. further propose to take subscriptions of a Guinea per annum from all parties desiring to have Catalogues sent them on the night before the sale, except Bankers, Members of the Stock Exchange, and Subscribers to the Hall of Commerce, to whom they will on application be delivered gratis.

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One Shilling per share	under £20
One Shilling and Sixpence	50
Two Shillings and Sixpence	100
Five Shillings for all above.	

And Two Shillings and Sixpence per lot offered for sale, (be the number of shares in such lot more or less,) when sales are not effected.

Hall of Commerce,
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ESTABLISHED 1836.

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Foreign Stock and Railway Share Agents, London.
11, Pinner's Hall, Old Broad Street.

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NOTICE IS HEREBY GIVEN,

THAT INTEREST at the rate of THREE PER CENT. PER ANNUM on the paid-up capital in this undertaking, calculated from the dates of the payment of each instalment (viz. 30th June, and 23rd September), to the 31st day of December, 1845, will be payable at the Offices of the Company on or after Thursday, 1st January, 1846.

It is necessary that the certificates for Shares should be left at the Office THREE CLEAR DAYS, for which a receipt will be given, and when called for, a warrant for the amount of interest will be delivered.

WILLIAM JESSE,
Secretary.

11, King William Street, City,
16th December, 1845.

THE DIRECT LONDON AND DUBLIN RAILWAY COMPANY.

OFFICES, 4, CHARLOTTE ROW, MANSION HOUSE.

Provisionally Registered.

Capital, £550,000, in 22,000 Shares of £25 each.

Deposit, £2 12s. 6d. per Share.

UNDER THE SPECIAL SUPPORT OF

The Right Hon. the Earl of Essex.

The Right Hon. the Viscount Massarene and Ferrard.

The Hon. Col. Edward Gordon Douglas Pennant, M.P.

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Wm. Griffith, Esq., Dolgelly, Merioneth.	Porth Dynllaen, Caernarvon.
Messrs. Royle and Williams, Llanfyllin, Merioneth.	William Williams Jones, Esq., Mac- lynlleth, Montgomeryshire.
Mr. David Jones, Llanfyllin, Merioneth.	

THE Committee of Management (pro tem.) beg to announce to the numerous applicants for their Shares, and the public, that they have completed their survey from Bala to Porth Dynllaen, hitherto considered a distance of upwards of 50 miles, and duly deposited their plans and sections, with their books of reference, at the Board of Trade, and with the Clerk of the Peace at Caernarvon.

They had determined not to allot Shares, nor to ask the public for a sixpence, till they could state that they had in every respect complied with the Standing Orders of Parliament. But in consequence of the Company's officer, who was dispatched from London early on Sunday morning, by express train, having been refused another express by the Grand Junction Company to Chester, after a promise made to him that it should be got ready in half an hour, that portion of the plans and sections intended for deposit with the Clerk of the Peace for Merionethshire, failed in reaching its destination in time. And although they are advised by counsel that there would be every probability of the Standing Orders being suspended in reference to this single point, all other requisitions as to notices, &c., being strictly complied with, yet they cannot conscientiously ask the public to take up their Shares for the whole line, where there is even the slightest possibility of failure.

The Committee, therefore, in conformity with a power reserved to themselves in their notice, intend to go only for that section of it between Tremadoc and Porth Dynllaen, which Mr. Braithwaite has reduced to a distance of 19 miles and three quarters. Their capital has consequently been reduced to 550,000*l.*, which it is estimated will cover every expense.

In a future Session they propose applying to Parliament for sanction to complete their undertaking,—both that part which has been already sur-

veyed, between Bala and Tremadoc, as well as the line from Shrewsbury to Bala, which they had previously found it impossible, from the difficulty of obtaining a sufficient staff of surveyors and levellers, to have in readiness for the ensuing Session.

The Committee again beg to draw the public attention to the advantages which the projected line holds out.

1st. It avoids the dangers, difficulties, doubts, and expenses of the Menai Straits.

2nd. It will afford the most direct and speedy communication between London and Dublin, via either Kingstown or Wicklow, by which last harbour it will open a short passage to the south and west of Ireland; thus commanding a preference of passenger traffic, as well as general railway transit to the Sister Kingdom.

3rd. It will supply the whole of the Midland Counties of England with slate at a moderate price, and develop those abundant mineral resources of North Wales, which now lie almost unexplored for want of the facilities of transmission.

4th. It will have at its terminus a harbour, which may be rendered at no very great expense equal to any in England, and far superior in every respect to Holyhead.

That mode of traction which shall be found to be the best in a commercial point of view, whether locomotive or atmospheric, will be adopted.

In reference to the line between Bala and Tremadoc, in an engineering point of view, it may be as well to state, that, although a commercially good railway through the principality has been hitherto considered impracticable, this most difficult portion has now, upon examination of Mr. Pilbrow's plans and sections, proved to be in distance under 26 miles, with gradients suitable to any system of locomotion, and without any engineering difficulties or works of magnitude, there being but two tunnels, and those combined not exceeding two miles.

An efficient Committee of Management will be selected from the Provisional Committee and the Shareholders.

In the allotment of Shares preference will be given to landowners and others locally interested.

The Subscribers will be held liable only to the amount of their first deposit, until an Act of Parliament be obtained, and afterwards only to the amount of their subscriptions, and power will be applied for in the Bill to allow interest at the rate of 4*l.* per cent. per annum on all calls, from the passing of the Act until the opening of the line.

[PROSPECTUS.]

THE CALCUTTA AND DIAMOND HARBOUR RAILWAY AND DOCK COMPANY.

For constructing a line of Railway from Calcutta to Diamond Harbour, with Warehouses, Buildings, and Docks there; and for continuing the Railway in a southerly direction at a future period, should the same be considered desirable.

Capital £1,000,000, in 50,000 Shares of £20 each.

A considerable portion to be reserved for India.

Deposit 7s. per Share.

Offices of the Company, 147, Fenchurch Street, London.

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THE river Hooghly, confessedly dangerous in its entire navigation, is much more so when its width is contracted as at Hooghly Point, a few miles above Diamond Harbour; it is between that place and the city of Calcutta that the dangerous shoals called the James and Mary, and others of minor note, obstruct the free na-

vigation of the river; it is here that the BORE—so celebrated for its force and strength—first shows itself in such fearful violence; and it is in this distance that delays and dangers are encountered, so destructive in their consequences to the best interests of Bengal in its commercial economy.

To prevent the necessity of navigating this most precarious channel, and to afford safe, cheap, and rapid transit for merchandize and passengers—the former comprising the whole external trade of Bengal; to provide docks of ample size to hold the fleets of merchant ships that visit the Hooghly; to convey the merchandize imported by, or to be exported in these ships, with rapidity, safety, and economy to and from the metropolis of India; to prevent the accumulation of charges felt to be so onerous by every owner of a ship trading to Bengal; and to put, in fine, the commerce of the emporium of India on a footing of improved arrangement, is the object sought by the Directors of the Calcutta and Diamond Harbour Railway and Dock Company. Neither have the advantages to be derived to the Shareholders been in the least lost sight of, as the Directors—from the published statistics, open to the inspection of every one—are satisfied that a revenue will be received quite ample enough to fully remunerate the subscribers—and this, too, on rates considerably below those charged in England; the Directors being impressed with the conviction that in securing the *whole* trade, by the encouragement of low rates of transit, they will best consult the public good, as well as the interest of their Shareholders: that they will be enabled to effect this they have no manner of doubt, from the entire absence of all engineering difficulties, and from the cheapness in the construction of the works, and the avoidance of all those expenses inseparable from the construction of English railways. It may be instructive to refer to a few of the principal items of the foreign trade of Bengal, as exhibited in that of the year ending 30th April last, as may be seen in Mr. Wilkinson's admirable publication. It will be the aim of the Directors, by the means they have now promulgated, to secure to this undertaking the transit of the whole of this vast amount of goods and merchandize.

The plan that the Directors propose to carry out is simple and inexpensive, when the magnitude of the trade is taken into account; to construct docks, (where a creek of considerable size already exists to invite the operation, where the lands are level, and purchasable on terms scarcely to be believed by those not locally conversant with the subject, and where the tide rises to a height fully equal to the draught of the largest vessels,) creates no apprehension that this, the most expensive part of the undertaking, will be beyond the estimate the Directors have formed of its cost; the construction of the necessary warehouses will be effected at a price not exceeding a moiety of what the same could be built for in England; while the Railway itself cannot, on the most extravagant calculation, be estimated to cost more than £6,000 for a double line of rails per mile.

The Directors feel that they have a sacred duty to perform, in protecting the lives and morals of the hardy seamen navigating the ships that may come under their charge, and they will take most especial care that a duty so sacred shall not be neglected.

It is not proposed by this undertaking to interfere in the least with the interest of the bonded warehouses lately established in Calcutta; on the contrary, it is ought rather to aid those useful appendages, and it will be one part of the plan, if possible, to run trains to their immediate vicinity, landing the goods into the railway trucks, and depositing them under the lock of the government at once, in the custody of the warehouse-keepers, and, if necessary, taking merchandize for export by the same proceeding; it being of easy accomplishment both to receive goods and merchandize into the railway carriages, and deposit cargoes for export in the same convenient way at the very side of the ship.

Neither will the Dock interest of Bengal be neglected, the Directors proposing to set apart a large portion of convenient land for the erection of spacious dry docks, slips, &c., that every improvement in their construction may be embraced.

A slight glance at the map will exhibit at once the saving of distance that the Railway will effect, while it is a well-ascertained fact that a vessel taking the full benefit of the Railway and Docks will, at some seasons of the year, discharge and take in another cargo in less time than one not having any aid in her progress would be able to reach Calcutta.

The Board of Directors in England will be assisted in Calcutta by a Committee of Management, to be chosen in the first instance by the Directors in England, who will also appoint a Secretary; and in other arrangements the greatest care will be taken, particularly in the deed of Settlement, to provide for the security of

the Shareholders, giving power to the Directors to apply, if necessary, for a Charter of Incorporation.

The Directors have already taken steps to secure the co-operation of the Court of the Honourable East India Company, who it is known, some years ago, had their attention particularly drawn to the necessity of constructing Docks at Diamond Harbour; the Directors are also aware of the great accommodation that the establishment of the proposed Docks and Railway will be to the various Steam Navigation Companies, whose vessels frequent the port of Calcutta; and it will be their earnest endeavour so to arrange their trains and the general economy of their undertaking, as to secure the most cordial co-operation of those bodies; and as they have been fortunate enough to obtain the active good-will of some of the first ship-owners in Great Britain to their plan, they fearlessly appeal to the public for that support which they feel the value of their project warrants them in asking.

(Signed,)

JOHN BAGSHAW,

CHAIRMAN.

Cheap and Splendid Railway Maps.—New Editions.

LARGE RAILWAY MAPS of ENGLAND, IRELAND, and SCOTLAND, reduced from the Ordnance Survey, by A. ARROWSMITH, distinctly showing the railways completed, railways in progress, and the railways proposed. Size of each Map, seven feet by five feet. Price, on rollers and varnished, two guineas and a half each; or the three Maps for six guineas. This highly important set of Maps distinguishes the railways that have passed the late Session, and independent of their railway attractions, are the most suitable of any Maps published for the office or library of the Merchant, Banker, Solicitor, or Public Institution.

Published by G. F. CRUCHLEY, Map and Guide Depôt, 81, Fleet Street.

THE MIRZAPORE AND DELHI RAILWAY COMPANY.

Provisionally Registered.

Capital, £4,000,000 in 80,000 Shares of £50 each.

Deposit, 5s. per Share.

Thirty thousand Shares to be reserved for India.

THE grand trunk line proposed to be constructed by this Company will start from the great emporium of Mirzapore, and running thence to Allahabad, will enter the level and fertile districts of the Doab, and proceed in a direct line by Mynpoore, Coel, Alleghur, through the most populous districts between the Ganges and the Jumma, to Delhi, throwing off branches to the great military posts and seats of commerce by the way. Among the recommendations of this line is the fact that it will approximate the seat of government to the Punjaub, the probable scene for many years to come of important political events.

Due notice will be given when the Prospectuses are ready for issue.

Applications for Shares must be addressed to Bayle St. John, Esq., Secretary, 12, Crosby Hall Chambers, Bishopsgate Street.

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OF
IMPROVED STREET PAVING, CLEANSING,
AND DRAINAGE.

ESTABLISHED MARCH, 1842.

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THE objects of the Association are to promote the improvement of the Paving, Cleansing, and Drainage of the Streets, Courts, Alleys, Ways, and Habitations of the Metropolis and other Cities, Towns, and Villages, with a view thereby to ameliorate the condition and contribute to the health of all classes of society.

To collect and disseminate correct information, and to invite the attention of the legislature, municipal authorities, and the public to these important objects.

To form a Repository for models and apparatus calculated to promote and illustrate the purposes of the Association.

To invite the co-operation of men eminent for their scientific and practical experience, and to give encouragement to those inventions which tend to advance the objects of the Association.

EXTRACTS FROM BYE-LAWS.

"No questions or objects of a political tendency shall be discussed or promoted at the meetings of the Association.

"Patentees, Proprietors, and Expositors, or persons belonging to, or employed under any Board of Direction, having a pecuniary interest in promoting any mode, or the use of any article, for Paving, Cleansing, or Drainage, may be admitted members of the Association, but shall not be eligible to act as members of the Council.

"An annual subscription of One Guinea shall constitute a member."

An important result in connexion with the improved Cleansing of the Streets, will be the employment of Thousands of the able-bodied poor.

RELIEF OF METROPOLITAN DESTITUTION,

AND

EMPLOYMENT OF THE POOR DURING THIS INCLEMENT SEASON, AND HEAVY FALL OF SNOW.

THE Commissioners of Sewers for the City of London having kindly permitted a Philanthropic Association, composed of various noblemen and gentlemen, to demonstrate to what state of perfection the streets may be kept clean, the public are informed that the following streets are now being cleansed by the Association :—Cheapside, Cornhill, Bank, Royal Exchange, Newgate, King, Gresham, Moorgate, Throgmorton, and Threadneedle Streets, and Tokenhouse Yard, &c.

Eighty men are now employed, at two shillings and sixpence per day, and one hundred and sixty will be employed as soon as the funds admit of it.

The whole of the operations are supported by voluntary contributions.

BENJAMIN BOND CABBELL, ESQ., TREASURER.

As the Council are very anxious to encourage among the men habits of industry, cleanliness, and neatness of apparel, they beg to state that a present of fifty pairs of trousers, or one hundred smock frocks, will be considered equivalent to a donation of 25*l.*; a present of one hundred long brooms or mops to a donation of 10*l.*

The under-mentioned bankers have kindly consented to receive subscriptions:—Sir Claude Scott, Bart., and Co.; the London and Westminster Bank and its Branches; Drummond and Co.; Bouverie and Co.; Ransom and Co.; Union Bank of London and its Branches; Lubbock and Co.; Robarts and Co.; Bosanquet and Co.; Prescott, Grote, and Co.; Hanburys and Co.; Sir Charles Price and Co.; Cocks, Biddulph, and Co.; Hankeys and Co.; Herries and Co.; Fuller and Co.; London and Dublin Bank; National Bank of Ireland; London Joint Stock Bank; Williams, Deacon, and Co.; Hopkinson and Co.; Strachan, Paul, and Co.; Hallett and Co.; at the Hall of Commerce; the London Tavern; and by the Secretary of the Association, at the Offices, 20, Vere Street, Oxford Street.

LIST OF SUBSCRIPTIONS RECEIVED THIS DAY:

	£	s.	d.
Charles Cochrane, Esq., President of the Association .	100	0	0
Luke J. Hansard, Esq.	50	0	0
Messrs. Coutts and Co.	10	0	0
The Misses Browne	5	0	0
The Rev. Dr. Spranger	5	0	0
The Rev. J. Spranger	1	0	0
Hyde Clarke, Esq.	5	5	0
Alfred Hyde Clarke, Esq.	3	3	0
Edwin Hyde Clarke, Esq.	2	2	0
F. T.	1	1	0
B. C.	1	1	0
Sir George Staunton, Bart., M.P.	10	0	0
H. F. Richardson, Esq.	5	5	0
J. S. Buckingham, Esq.	1	1	0
Mr. Henry Dodd, one of the Contractors for Cleansing	5	0	0

By order,

M. DAVIES, Secretary.

20, Vere Street, Oxford Street.

THE LONDON SEWAGE COMPANY.

Provisionally Registered.

Capital £1,500,000, in 37,500 Shares of £40 each.

Deposit £2 4s. per Share.

THE practicable plan, of which the Company is possessed, will intercept every Sewer at present discharging itself into the Thames, and the contents, both solid and liquid, will be carried out into the country for agricultural purposes, without any objectionable exposure or nuisance. The Company has assurances of support from many very influential parties, when its plan shall have been deposited, in conformity with the standing order of Parliament, on or before the Thirtieth day of November, and the list of the Provisional Committee will then be published.

BANKERS.

Messrs. Williams, Deacon, Labouchere, Thornton, and Co., 20, Birchin Lane.

ENGINEER.

Thomas Wicksteed, Esq., Engineer to the East London, the Grand Junction, Kent, Southwark and Vauxhall, Water Works in London; and to the Hull and Wolverhampton Water Works.

ARCHITECTS AND SURVEYORS.

John Blyth, Esq., Aldersgate Street, and R. C. Carpenter, Esq., Guildford Street

CONSULTING CHEMIST.

Arthur Aikin, Esq., F.L.S., F.G.S., &c., &c., Lecturer on Chemistry at Guy's Hospital, and Vice-President of the London Chemical Society.

SOLICITORS.

Messrs. Wood and Blake, 8, Falcon Street, City.

SECRETARY.

Andrew Martin, Esq., 4, New London Street, Crutched Friars.

GREAT anxiety has been felt of late, both by the Government and the Corporation of the City of London, in regard to the removal of long-existing evils consequent on the imperfect system of drainage in many parts of the Metropolis, and the pollution of the Thames by the discharge into its waters of the contents of all the public sewers; but, notwithstanding the prevailing desire that these evils should be remedied, nothing fully adapted to effect this important object has been done, and no *practicable* plan has yet been brought under the notice of the public.

Sharing in the general anxiety on this subject, and desirous to apply a remedy which shall meet all exigencies, the promoters of the LONDON SEWAGE COMPANY have established it under the most favourable auspices, which enable them to promise the complete removal of the evils referred to, in the shortest period possible.

In regard to the Sewage, (or the contents of the Sewers discharged into the Thames,) it is well known that it is carried up and down the river, with the flow and ebb of each day's tide. The earthy portion, settling gradually to the bottom, leaves the shores at low water in a most filthy state, whilst the most noxious gases escape on every side, vitiating the atmosphere, and generating agues and fevers; and the banks of the Thames, which ought to be the most pleasant abodes in England, are amongst the most unhealthy and dangerous.

As it is the first object of the LONDON SEWAGE COMPANY to remedy these evils, now felt to be intolerable, and as the measure it contemplates will tend to increase the salubrity of the metropolis, it is assured of support from the inhabit-

ants of this great city. The Company has already received many encouraging communications from all ranks and classes, and feels confident that its plans will be countenanced by the government and the municipal authorities.

How best to accomplish its designs, has been a matter of patient and lengthened study; and the eminent engineer, whose services the Company has secured, and whose attention has, for some time past, been much directed to the subject, has now matured a plan, which no doubt will be sanctioned by Parliament, as fitted to effect thoroughly and completely the great object in view, viz., the intercepting, and removing to the country, of the entire contents of all the sewers on both sides of the Thames, and thus removing that contamination of the stream, which now obliges the inhabitants of London to seek their supply of water at a great distance, instead of taking it, as formerly, from the river. The plan proposed will also improve the drainage in those parts of the metropolis where it is still defective, and will reduce in future the expenditure for the construction of sewers: for it is well known that their very great size is caused by the drainage from them not being continuous, which renders them, in fact, at high water, reservoirs, and not drains. By the plan now proposed, however, the current will be kept constantly flowing, and it may be safely said that sewers of half the present capacity will in future be sufficient, and a large sum be thus annually saved in their construction.

In effecting these very desirable ends, another most important benefit will be obtained, calculated to be of great advantage, in many respects, to the country at large. The sewage, which now wastes in the Thames, vitiating and polluting its waters, and spreading miasmatic vapours over the densely peopled city on both the banks, may become, when properly applied, one of the surest elements of national prosperity. Experiments have amply proved that, as a manure for land, it possesses unequalled properties and powers for fertilising and increasing the productiveness of the soil; and landowners and farmers, to whom this fact is very generally known, will have thus provided for them additional and most efficient means of agricultural improvement. Nor should it be overlooked that, in thus making use of a manure which is found at our door, the country will save a great part of the very large sum now annually expended in the import of foreign manures.

Thus regarded, the objects of the LONDON SEWAGE COMPANY must be considered of an importance not less than national, and deserving public support; whilst estimates, founded on the most careful calculations, assure an ample return on the capital required for their attainment.

The liability of Shareholders will be limited to the amount of their subscriptions; and power will be applied for to allow interest at the rate of four per cent. per annum on the deposits and future calls, from the period of the Company's obtaining the required Act of Parliament, until its works shall be in operation; this being warranted by the prospect of a sufficient profit being obtained within the first two years after the Company's incorporation.

Applications for Shares, accompanied by a reference to a banker, or other respectable parties, may be addressed to the Solicitors, or to the Secretary.

FORM OF APPLICATION.

TO THE PROVISIONAL COMMITTEE OF THE LONDON SEWAGE COMPANY.

I request that you will allot to me Shares in the above proposed Undertaking, and I will accept the same, or any less number, and pay the deposit thereon, and sign the Parliamentary Contract and Subscribers' Agreement, when required so to do.

Dated this day of , 1845.

Christian and Surname in full

Profession or Business

Residence

Place of Business (if any)

Reference

Address of Referee

THE GREAT NORTH OF INDIA RAILWAY,

FROM

ALLAHABAD TO DELHI,

WITH POWERS TO EXTEND OR VARY THE SAME.

(Provisionally Registered under the Act 7 & 8 Vict. cap. 110.)

For constructing a Railway to connect the Cities of Delhi, Agra, and Allahabad, with powers to extend the same to MIRZAPORE and BENARES, and with Branches to MEERUT, and other places.

Capital, £4,000,000, in 80,000 Shares of £50 each.

Deposit 5s. per Share,

Being the largest sum allowed to be taken under the Registration Act.

A RESERVE OF SHARES WILL BE MADE FOR INDIA.

PROVISIONAL COMMITTEE.

Major-Gen. Martin White, Bengal Army, Bath.	Sir William Magnay, Bart.
Major-Gen. Morgan, of the Bombay Army, Singleton House, Torquay.	G. G. Grant, Esq., of Limepotts and Edinburgh.
Lieut.-Col. Pereira, of the Bengal Army, Elms, Taplow, near Maidenhead.	William Burge, Esq., Q.C.
Lieut.-Col. W. Spiller, Fern Acres, by Gerard's Cross, Bucks, Director of the Oriental Bank.	William Nash, Esq.
S. G. Bonham, Esq., late Governor of Singapore, Oriental Club.	Captain P. A. Reynolds (of the firm Grindlay and Co.), 23, Sussex Gardens, Hyde Park.
F. O. Wells, Esq., of the Bengal Civil Service, 22, Montague Square.	Captain Hutchinson, R.N., Bedford.
G. Gunning Campbell, Esq., late of the Bengal Establishment, 37, Montague Square.	George Adam, Esq., late of Bombay, Merchant, Cornhill.
Major Henry Pelham Burn, of the Bengal Army, Oriental Club.	Capt. E. J. Pratt, 16th Lancers, Somerfield Terrace, Maidstone.
Major Cadogan, late of the 22nd Light Dragoons, 15, St. James's Place.	Robert Rawlings, Esq., Bere Hill House, Whitechurch, Hants.
R. W. Maxwell, Esq., late of the Bengal Civil Service, Middleton Hall, Uphall, Edinburgh.	Charles Stanley, Esq., Sheffield.
William Vansittart, Esq., Bengal Civil Service, 1, Halkin Street, West, Belgrave Square.	Richard Hartley Kennedy, Esq., 10, Manchester Square, Director of the Oriental Bank.
B. Burt, Esq., late of the Bengal Army, Oriental Club.	Harry Borradaile, Esq., late Bombay Civil Service, Ham, Surrey.
B. S. Jones, Esq., late Assistant Secretary to the India Board of Control, St. John's Wood.	Capt. C. W. Reynolds, 16th Lancers, Maidstone.
Sir William Chaytor, Bart., Clervoux Castle, Darlington.	Capt. Charles Campbell, Bengal Army.
	Capt. Hitchins, 43, Queen Anne Street, Cavendish Square.
	William B. D. D. Turnbull, Esq., Edinburgh.
	Edward Binny Glass, Esq., Bengal Civil Service, Chicacole.
	Alexander McNeill, Esq., Edinburgh.
	Major Henry Clayton, of the Bengal Army, 2, Park Villas, Richmond.

(With power to add to their number.)

BANKERS.

Messrs. Smith, Payne, and Smiths.

Messrs. Masterman, Peters, and Co.

Messrs. Sapse, Banbury, and Co.

SOLICITORS.

Messrs. Hodgson, Concanen, and Noyes, 5, Lincoln's Inn Fields.

PROSPECTUS.

THIS Company has been formed for the important object of constructing a Railway between the large and opulent Cities of DELHI, AGRA, and ALLAHABAD, and for extending the same to MIRZAPORE and BENARAS, with Branches to MERRUT and other places.

The Line will be about 400 miles in length; in its course it is intended that it shall embrace the whole of the large towns and districts comprised in the rich and fertile country of the Doab; and it will at the same time form a connecting link between all the great military stations in Upper India.

Its ultimate extension to Mirzapore will, in conjunction with the projected line from Calcutta, complete a great trunk railway from the seat of government to the North-western Frontier.

The Directors of the East India Company, deeply impressed with the importance of the political and commercial advantages to be derived from the introduction of railway communication into India, have already deputed an eminent engineer to that country, for the purpose of making the necessary surveys and reports,—and they have, with their usual enlightened policy, pledged themselves to afford the fullest encouragement and support to undertakings of this nature to be carried into execution by means of private enterprise and capital.

It is at the outset proposed to commence this Railway at Allahabad (at present the entrepôt for the passenger and commercial traffic by means of the steamboats on the Ganges), and to form a great Trunk Line from that city to Cawnpore, Agra, and Delhi; but as the completion of comparatively short lines is the best mode of introducing railways into any country, it is proposed to begin by a Line from Allahabad to Cawnpore, or from Agra to Delhi, and to proceed upon this principle till the junction of the places included in the registered description is effected.

From the peculiarly favourable nature of the country through which it will pass, the facilities for the construction of this work are so great, that it may with confidence be asserted, the cost will be much below the average estimate for any railway in India. There are no engineering difficulties of any kind to be surmounted; the country is not subject to inundations, and no costly impediments present themselves to its formation. The land will be of easy attainment, labour is cheap, and can be procured to an unlimited extent, and there is an abundant supply of timber.

Above Allahabad the numerous shoals and sand-banks present, during the greater portion of the year, an insurmountable barrier to the extension of steam navigation upon the Ganges; and the only mode at present in use in the Upper Provinces for the conveyance of merchandise and stores, is by the slow and expensive process of land carriage, over the badly constructed roads of the country.

This Railway will, consequently, from the reduced cost of transport, at once absorb the whole of the existing traffic of the country; and experience

at home places it beyond a doubt, that when it is completed a vast amount of new traffic will be rapidly called into existence.

An investigation of the official returns clearly demonstrates that a greatly increased demand for all kinds of British manufactures will immediately arise in the Upper Provinces of India and the neighbouring states, from facility of transit; whilst it will simultaneously lead to a development of the natural resources of a country teeming with mineral wealth and the richest agricultural productions.

Amongst the advantages to be derived from the construction of this Railway, it must not escape attention that it will conduce to the easy and cheap conveyance of agricultural produce, and thereby equalize the prices in the neighbourhood of the different places which it connects. It will open the granaries of Mirzapore, and the rich and productive lands of the Doab and Oude to the populous cities of the North-west provinces, and render the recurrence of the high prices of grain at Agra and Delhi of 1837, 38, and the consequent famine, next to impossible. Had a Railway, such as is now proposed, been in existence in the years just named, upwards of 100,000 lives would have been saved, and the Railway been hailed as a blessing by a famishing population. Of grain there was plenty in the country, and the means of paying for it—facility of carriage alone was wanting.

The increased fertility and produce of the country arising from the great Doab Canal now under construction by Government, will find ready and profitable markets by means of this Railway. The cotton of Calpee and Agra, and the indigo and other dyes produced in the North-west provinces, will be brought to Allahabad on their way to the coast in a few hours, instead of being laden in boats of bad construction to be navigated on tedious and difficult rivers, a journey of several weeks' duration. The insurance of merchandise and property from Agra to Allahabad by the river route, in consequence of the danger and difficulty of the navigation, is as high as from Calcutta to England: the distance in the one case being 300 miles, in the latter 15,000 miles.

The return upon the capital to be invested in this undertaking may, from the traffic of merchandise and produce alone, be fairly assumed to exceed the ordinary per-centage in India; and although it might be somewhat difficult to form any approximate estimate of the amount which will be derived from passenger traffic, it is by no means unreasonable to suppose that as the native mind gradually becomes familiarized with the prominent advantages which it imparts, the receipts on this account will hereafter be materially augmented; when, however, in addition to this, it is considered that the Government will immediately avail itself of the advantages which this Railway will present for the economical and rapid conveyance of the mails, for the removal of troops and baggage, and for the transport of the large and increasing amount of military stores, which are annually sent to the Upper Provinces, there is the strongest reason for believing that the return to the Shareholders will considerably exceed that amount.

A comprehensive statement of the objects for which the Company has been formed has been transmitted to the Chief Secretary to the Government of India, preparatory to an application being made for an Act of the Legislative Council to empower the Company to carry out its plans; and similar papers have also been forwarded to the Secretary to the Governor of the North Western Provinces at Agra.

Copies of these documents, together with full information respecting this Company, have been sent in to the Secretary of the Honourable Court of East India Directors in London.

It is intended to take immediate steps for obtaining a survey of the line, the expenses of which, and the other necessary disbursements of the Company connected with its general management, will be defrayed out of the first deposits of five shillings per share; and should the Shareholders, or any of them, on such preliminary survey being submitted to them, determine not further to prosecute the work, the deposits of five shillings per share will be returned to them, after deducting their proportion of such expenses; and a clause will be inserted in the Subscribers' Agreement limiting the liability of each Shareholder to the amount of his deposits, until, by resolutions of the Shareholders at a General Meeting, it shall be determined to subscribe further for prosecuting the objects of the Company. The Subscription Contract will also contain powers enabling the Directors to apply for a Charter of Incorporation, or Act of Parliament, and until the same shall be obtained, the affairs of the Company shall be under the control of the Committee of Management, to whom power is given to allot the shares, and to apply the funds of the Company in payment of the expenses incurred in its formation and necessary surveys.

Power will be applied for in the Act—and in the meantime is hereby given to the Committee of Management—to raise an additional capital; to abandon any part of the Line; to make Branch Lines, or enter into arrangements with any other company or companies; and also to nominate the first Directors and Officers of the Company.

Applications for shares, in the accompanying form, may be made to Messrs. HOBSON, CONCANEN, and NOYES, Solicitors to the Company, 5, Lincoln's-Inn-fields, and S. H. ELLIS, Esq., Sharebroker, 17, Throgmorton Street.

FORM OF APPLICATION FOR SHARES.

TO THE PROVISIONAL COMMITTEE OF THE GREAT NORTH OF INDIA
RAILWAY COMPANY.

GENTLEMEN,

I request that you will allot me Shares of 50*l.* each, in the above undertaking; and I hereby undertake to accept the same, or any less number you may allot me, and pay the Deposit of Five Shillings per Share, and all future calls thereon, and also sign all necessary deeds when required.

Dated this day of 1845.

Name in full.

Place of Business or Profession.

Residence.

Business or Profession.

Name, Residence, and Profession
of Referee.

THE GREAT NORTH OF INDIA RAILWAY, FROM ALLAHABAD TO DELHI.

Provisionally Registered.

NOTICE is hereby given, that the Shares in this Company will be allotted so soon as the necessary inquiries have been completed. In the meantime arrangements are making for the departure (in January next) of one of the Directors to India, for the purpose of carrying out the objects of this Company.

By order of the Board,
HODGSON, CONCANEN, and NOYES.

5, Lincoln's Inn Fields,
Dec. 17, 1845.

THE GREAT NORTH OF INDIA RAILWAY.

Provisionally Registered.

Those parties who have applied for Shares in this country are informed that the allotment for this country has been completed, and such number of Shares apportioned to eligible applicants as was consistent with the reserve made for India. The letters of allotment will be posted so soon as the necessary routine can be accomplished. The Committee regret that they have not had it in their power to comply with the requests of numerous most respectable applicants.

By order of the Board.

JOURNAL DES TRAVAUX PUBLICS

DES CHEMINS DE FER, DU COMMERCE ET DE L'INDUSTRIE.
BULLETIN DES ADJUDICATIONS ADMINISTRATIVES.

Le Journal des Travaux Publics, va entrer dans sa quatrième année d'existence. Sa publicité, qui n'a cessé de s'étendre, embrasse aujourd'hui toutes les questions que soulève l'exécution des grands travaux publics en France, en Angleterre, en Belgique, en Allemagne, dans tous les pays enfin où ces questions sont à l'ordre du jour. Ce journal s'adresse à une classe considérable de lecteurs intéressés à être tenus au courant de toutes les grandes entreprises qui s'exécutent. Il est LE SEUL qui donne d'une manière complète et officielle les avis d'adjudications de travaux ou de fournitures pour tout le royaume, ainsi que les résultats des adjudications prononcées. On peut dire qu'il est indispensable à toutes les personnes qui s'occupent de ces affaires.—Le JOURNAL DES TRAVAUX PUBLICS paraît deux fois par semaine, le Jeudi et le Dimanche.—On s'abonne aux bureaux de Postes et aux Messageries.

PARIS.—Un an, 20 fr. ; Six mois, 12 fr. Trois mois, 6 fr.
DEPARTEMENTS.—Un an, 26 fr. Six mois, 14 fr. Trois mois, 8 fr.

BUREAUX, RUE MONTMARTRE, 131.

Les Lettres non affranchies seront refusées.

Just published, a

CATALOGUE of an Interesting and Valuable **COLLECTION** of **BOOKS**, by N. HUETT, 37, PRINCES STREET, LEICESTER SQUARE, which may be had gratis on application, or will be sent to any part of the kingdom upon the receipt of one penny postage stamp.

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- Philosophical Transactions of the Royal Society of London, from the commencement, in 1665, to the year 1800, abridged, with Notes and Biographical Illustrations by C. Hutton, G. Shaw, and R. Pearson. 18 vols. 4to, half-russia, 5*l.* 5*s.*; published at 18*l.* 18*s.* 1819
- Gray's (F. G.) Operative Chemist; being a Practical Display of the Arts and Manufactures which depend upon Chemical Principles. Thick 8vo, 100 Engravings, half-cloth, 14*s.* 1831
- Blackwood's Edinburgh Magazine, from the commencement, in 1817, to the end of 1834. 36 vols. half-calf, neat, 8*l.* 8*s.*
- Kippis's Biographia Britannica. 5 vols. folio, strongly bound in russia, 2*l.* 10*s.* (The binding alone would cost about 5*l.*)
- Lewis's Topographical Dictionary of England and Wales, comprising the several Counties, Cities, Boroughs, Corporate and Market Towns, Parishes, Chapelries and Townships, with Historical and Statistical Description. 7 vols. 4to, maps, cloth, 5*l.* 5*s.*; published at 12*l.* 12*s.* 1840
- Edinburgh Review, from its commencement, in 1803, to 1840. 71 vols. 8vo, half-calf, neat, 9*l.*
- Penny Magazine, from the commencement, in 1832, to the end of 1842. 11 vols. royal 8vo, half-calf, neat, 2*l.* 2*s.*
- London Encyclopædia, complete. 22 vols. royal 8vo, in 47 Parts, 4*l.* 10*s.*
- Lewis's Topographical Dictionary of Wales, comprising the several Counties, Cities, Boroughs, Corporate and Market Towns, Parishes, Chapelries and Townships, with Historical and Statistical Description. 2 vols. 4to, large paper, maps, 1*l.* 1*s.*
- Roscoe's Life and Pontificate of Leo the Tenth. Fourth edition, revised by his Son, Thomas Roscoe, 2 vols. 8vo, numerous pretty wood-cuts, 18*s.*; just published at 1*l.* 4*s.*
- Roscoe's Life of Lorenzi de Medici, called The Magnificent. Eleventh edition, revised by his Son, Thomas Roscoe, numerous pretty wood-cuts, 8vo, cloth, 9*s.*; just published at 12*s.*
- Engravings after the best Pictures of the Great Masters. 20 plates, atlas folio, half-bound morocco, 2*l.* 15*s.*
- London Art-Union Prize Annual, containing 250 Engravings of Pictures and Sculpture purchased by the London Art-Union. Small folio, 1*l.* 11*s.* 6*d.*
- Decameron; or Ten Days' Entertainment of Boccaccio. Translated from the Italian, 8vo, cloth, 4*s.*
- Brenton's Naval History of Great Britain, from the year 1799 to 1822. 3 vols. 8vo, plates, boards, 7*s.*
- Universal History (Modern Part), from the earliest account of Time, compiled from Original Authors. 44 vols. 8vo, boards, 2*l.* 10*s.* 1766
- Universal History (Ancient Part), from the earliest account of Time, compiled from Original Authors. 21 vols. 8vo, calf, 1*l.* 14*s.* 1747

- Meyer's British Birds. 4 vols. large 4to, cloth, with upwards of 300 plates, 6l. 6s.
- British Essayists, with Prefaces, Biographical and Critical, by Alexander Chalmers. 45 vols. 12mo, calf, 3l. 12s. 1802
- Jahn's History of the Hebrew Commonwealth, from the earliest Time to the Destruction of Jerusalem. Translated from the German by C. E. Stowe, 8vo, cloth, 7s. Oxford, 1840
- Jahn's Manual of Biblical Antiquities. Translated from the German, with an Index of Texts referred to, and many other Additions, by T. C. Upham. Third edition, 8vo, cloth, 7s. Oxford, 1836
- Lamb's (Chas.) Essays of Eli. 2 vols. 12mo, cloth, 5s. 6d.
- Inglis's (H. D.) Personal Narrative of a Journey through Norway, part of Sweden, and the Islands and States of Denmark. Fourth edition, cr. 8vo, cloth, 4s. 1837
- Inglis's (H. D.) Journey throughout Ireland, during the Spring, Summer and Autumn of 1834. Fifth edition, cr. 8vo, cloth, 4s. 6d. 1838
- Farmer's Magazine, from January, 1837, to June, 1842. 11 vols. large 8vo, cloth, numerous plates, 1l. 15s.
- Percy's Reliques of Ancient Poetry, consisting of Old Heroic Ballads, Songs, and other Pieces of our earlier Poets. 3 vols. cr. 8vo, half-morocco, cuts, 16s. 1839
- Crabb's Universal Technological Dictionary; or, Familiar Explanation of the Terms used in all Arts and Sciences. 2 vols. 4to, cloth, scarce 1l. 15s. 1823

THE RAILWAY EXPRESS.

ON FRIDAY, JUNE 13th, was published, the First Number of
"THE RAILWAY EXPRESS."

This Weekly Journal is exclusively occupied by such information, respecting Railways, Steam Navigation, Canals, Mining, Banking, Insurances, &c., as can convey full and faithful knowledge of the condition and prospects of these National Enterprises. It is hoped that the extent and accuracy of its intelligence, as well as its integrity and independence, will cause THE RAILWAY EXPRESS to be considered a recognised and trustworthy recorder and examiner of the important subjects to which it shall be devoted.

Among the leading contents of THE RAILWAY EXPRESS are Reports of Railways, and other Joint Stock Meetings, Prices of Shares, Returns of Traffic, &c., on the different Lines, Abstracts of Legislative and Legal Proceedings, Statistical Details, Notices of Scientific Improvements and Inventions, Reviews of New Publications, and Selections from the Metropolitan, Provincial, Colonial, and Foreign Journals. Neither labour nor expense are spared to give the public, from the best sources, all that is of interest and importance relative to existing or projected undertakings, at home and abroad, so as to allow Capitalists and others the best means of judging for themselves upon any Joint Stock propositions which may be submitted to their attention.

As an excellent medium of publicity, from the desirable channels in which it will circulate, the claims of THE RAILWAY EXPRESS are respectfully submitted to the notice of Advertisers.

THE RAILWAY EXPRESS is published at an early hour every Friday, so as to allow its despatch to all parts of the kingdom by the morning mails of that day. It is printed on a large sheet, in a convenient form for binding. Price Sixpence each weekly Number. Annual Subscription, paid in advance, £1 4s.

Communications for the Editor, Orders, and Advertisements, received at the Office of THE RAILWAY EXPRESS, 11, Wellington Street (North), London.

RAILWAY ACCIDENTS AND THEIR REMEDIES.

LEE'S PATENT BREAKS.

THE amazing increase of Railways, and the rapidity with which they are superseding all other roads in connecting together each important Town in the United Kingdom with every other, are forcing upon the public attention the paramount necessity of devising and adopting every possible means of conducting this rapid mode of conveyance with entire safety to the passengers; or, at any rate, with the least practicable liability to accidents.

The details of the accidents which have from time to time occurred, are too painful to be dwelt upon for any purpose less important than that of endeavouring to ascertain the circumstances whereby these sad casualties have been produced. But with this high object in view, we are *all* called upon to give our best attention to these calamitous occurrences, and we may feel assured that no such inquiries will be fruitless, provided they are conducted with a sincere disposition to examine all the peculiarities of each case, and to mark wherein lie those practical defects of construction, or of arrangement, by which Railway accidents are now produced, or rendered more destructive, and by the remedy of which greater safety may confidently be secured.

By the reports of the accidents we are constantly informed, that the *difficulty of suddenly, and on instant occasion, arresting the progress of the train*, is a circumstance attendant on nearly every case of accident, and greatly promotive of fatal consequences. We read, that even with the prospect of certain destruction, the ill-fated passengers are inevitably carried *hundreds of yards*, before the train can be stopped; that after the force of the steam is quelled, the momentum of the train mocks, for a fatal period, the desperate attempts of the guards; and that during this period collision frequently happens, which, could the carriages have been stopped in a shorter space, might have been altogether avoided.

In plain terms, the superinducing cause of such accidents is not a necessary consequence of the velocity of the train, or of the ill-timed movements by which the collision is immediately brought about, but simply the *defective apparatus in use for stopping the wheels of the carriages—the imperfect breaks applied*.

Under this conviction, therefore, we must regard with interest all attempts made to introduce improvements in this apparatus, and wherever such improvements are demonstrated to be really promotive of the end sought, it becomes a public and a legislative duty to see that they are fully and fairly carried into general practice.

With this view it is desirable that public attention be at once directed to some most important improvements in the breaking apparatus of Railway carriages, patented by Mr. John Lee, and which realize all that can be expected of safety in railway travelling. Under the kind permission of those energetic engineers, Mr. Cubitt and Mr. Gregory, these improvements have been tried with complete success. Those who desire that the community should reap the benefit of improvements designed by the ingenuity of its members, and who can imagine the obstacles which oppose every inventor, will accord to those gentlemen their gratitude for thus enabling Mr. Lee to offer to engineers and the scientific public generally, a proof beyond dispute of the great value of his inventions in a commercial, as well as humane point of view.

Mr. Lee's break is completely designed to act not only on the wheel, but also actually *on the rail itself*. In all other breaks the power of stopping is derived only from the friction produced between the rail and the small part of the periphery of the wheel in contact with it; this does not amount to more than one inch and a-half in length of surface of rail. Mr. Lee's break not only secures this friction, but also adds to it a length of fifteen inches, on each break, of friction between it and the rail.

On one pair of Wheels, therefore, these breaks produce thirty-three inches of friction, instead of three, which is all that is given by the old breaks, thus multiplying the stopping power no less than eleven times. The surface of the Patent Break which comes into

contact with the rail is faced with copper, and thus the most perfect adhesion is obtained. The apparatus by which the break is put into action, or withdrawn, is simple and effective; not liable to derangement, and may be instantly worked. The break is let down upon the rail, and enabled to act, to a great extent, without actually locking the wheel; and indeed, a power of breaking may be thus obtained *ten times* that now possessed without *stopping the wheel*, thus saving much of that great and costly wear of wheel-tires, which forms so serious an item in the current expenses of railways.

The Apparatus has already received the commendation of many scientific Gentlemen and of several Engineers, and is about to be applied to the Carriages on many of the Railways. The Guards who have used it, speak in the highest terms of its efficacy and ease of working, and express their hope, that shortly no other breaks will be allowed to be used.

Since the 12th of June, the apparatus has been in daily use, and has been put into action between seven and eight thousand times during that period, earning the warm encomiums of all who have witnessed its powers.

One instance sufficiently striking, yet by no means uncommon, of the power of this break, may be quoted:—On the 17th June, a wet day, a train consisting of nineteen Carriages, besides Engine and Tender, descending the incline (at 1 in 100) at a velocity of thirty-five miles per hour, was, by the use of only one of these single pair breaks, brought to a dead stand in the space of fifty-five yards.

Another most important feature of these improvements is, that they are entirely independent of the Carriage, and do not impart the least unpleasant motion to it. Indeed they are constantly put into action on the steep incline on the Croydon Railway, and again released, without the passengers in the Break-carriage being at all aware of it; all Railway Travellers will understand how highly to appreciate this valuable peculiarity. To the delicate and the invalid, who are compelled to travel by railway, this feature alone is of vital benefit and importance.

And with the overwhelming advantage, at which only a glance is here presented, the Patent Break can be applied at a somewhat less cost than that of the defective and inefficient apparatus now in common use. A Double Break which acts simultaneously on four wheels is now in use, and with this apparatus one breaking carriage does the work of twenty-two of the common single break carriages.

The leading advantages of these momentous improvements are therefore:—
First:—Incalculable greater safety to the passengers; and,
Second:—Economy in the first cost and current expenses of Break-apparatus, by the less number required.

The Apparatus is to be seen daily at the London Bridge Station, between the Trains; and all interested in this important subject, (and who are not!) particularly Directors and Engineers of British and Foreign Railways, are recommended to inspect it, and avail themselves of Mr. Lee's explanations of its merits.

Communications from parties desirous of further information, and of adopting this Invention under licence or otherwise, are requested to be addressed to Mr. J. LEE, F.S.A., 1, Nelson Square, Blackfriars Road.

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For further particulars apply to **EDWARD JOSEPHS**, Stock and Share Agent, Hall of Commerce, Threadneedle Street, or Capel Court, Bartholomew Lane, near the Stock Exchange.

All descriptions of stock, shares and other securities negotiated.
On time bargains a deposit or respectable references required.

RYE AND THOMAS, MINE AGENTS AND DEALERS IN STOCKS, RAILWAY AND OTHER SHARES, 80, Old Broad Street, London.

HENRY HALL, STOCK AND SHAREBROKER, 40, High Street, Hull.

**STOCK EXCHANGE AND RAILWAY SHARE AGENCY,
9, CHARING CROSS.**

MESSRS. BAUGHAN and CO., having a perfect knowledge of all the financial arrangements of Foreign States, and the existing conditions and probable results of railway shares, are enabled to furnish detailed information and data, which may be relied upon, to all parties seeking permanent investments. Messrs. B. and Co. buy and sell English and Foreign railway shares of every description at the different prices of the day. The lists of prices kept at the offices. Attendance from 11 till 2.

**RAILWAY SHARES, ETC., ETC., BY AUCTION.
TO SHAREHOLDERS AND CAPITALISTS.**

ENCOURAGED by the recent increase of business in the sale and transfer of shares in the various public Companies, British and Foreign, and acting under the advice of friends and capitalists, Messrs. LAMOND and Co., licensed auctioneers, have deemed the additional occupation thus created, together with the abolition of the auction duties, a fit opportunity for opening a separate and independent practice, to which they have determined to devote their undivided attention, declining all other business for this express purpose, viz. :—

“The sale by auction of shares in railways, British and Foreign; Assurance, Mining, Cemetery and Canal Companies; Joint Stock Banks; Debentures, Bonds,” &c., &c.—in short, of every description of interest connected with the numerous public Companies formed and now forming in the commercial world.

In arriving at this determination, it will be the anxious desire of Messrs Lamond and Co. to give every information and satisfaction to their friends and the public, and looking at the probable magnitude of operations yielding adequate remuneration, they have resolved to adopt a low scale of *ad valorem* charge, by way of commission; and where sales are not effected, a small fee (merely sufficient to cover the expenses of printing, advertising, &c., &c.) for putting up the lots.

To avoid any misunderstanding a deposit of 10 per cent. will be required on all purchases at the hammer, unless the same be effected through Bankers, Members of the Stock Exchange, or parties well known to the Auctioneers; and a settlement of the remainder of the purchase-money must in every case be made in the course of the following day, during the usual hours of business, or the sale will be void and the deposit forfeited, except where special transfers are required, and to such all possible expedition will be given.

As all scrip and share certificates must be deposited for examination at least one day previously to their being offered to public competition, Messrs. Masterman and Co., Bankers, Nicholas Lane, and Messrs. Ransom and Co., Bankers, Pall Mall East, London, have been pleased to allow reference to be made to them, in regard to the respectability of the firm of Lamond and Co.

Their sales are held every Tuesday and Friday, in their Rooms at the under-mentioned Hall, at two o'clock precisely, to which place letters and orders containing instructions are respectfully requested to be addressed, and where one or more of the partners will be always in attendance to be conferred with, if required; and advices of the operations of the day will be forwarded by the first post after each day's sale, and the proceeds paid according to their correspondents' intentions.

Messrs. Lamond and Co. further propose to take subscriptions of a Guinea per annum from all parties desiring to have Catalogues sent them on the night before the sale, except Bankers, Members of the Stock Exchange, and Subscribers to the Hall of Commerce, to whom they will on application be delivered gratis.

SCALE OF CHARGES.

One Shilling per share	under £20
One Shilling and Sixpence	50
Two Shillings and Sixpence	100
Five Shillings for all above.	

And Two Shillings and Sixpence per lot offered for sale, (be the number of shares in such lot more or less,) when sales are not effected.

Hall of Commerce,
Threadneedle Street, London.

ESTABLISHED 1836.

THOMAS WREN,
STOCK AND SHAREBROKER,
 Preston, Lancashire.

J. W. AIKIN,
 (Member of the Lynn Stock Exchange.)
STOCK AND SHAREBROKER,
 78, High Street, Lynn.

**NOTICE TO SPECULATORS IN FOREIGN STOCKS,
 RAILWAY SHARES, ETC.**

EVERY information on the subject of speculation in the Purchase or Sale of Foreign Stocks, Railway Shares, &c., and a Daily List of the Current Prices, with the nature of Time Bargains explained, may be had gratuitously by a personal application, or by letter to

LEWIS JACKSON and CO.,
 Foreign Stock and Railway Share Agents, London.
 11, Pinner's Hall, Old Broad Street.

WEST FLANDERS RAILWAYS.

THE Directors beg to give notice that, in compliance with the wishes of the Proprietors expressed at the General Meeting held on the 13th instant, at the London Tavern, they have resolved that they will receive from such Proprietors as may be disposed to pay the same, a further instalment of £3 per Share, in anticipation of the next call.

Proprietors who may desire to avail themselves of this will be entitled to certificates transferable to bearer, which will bear interest at £3 per cent. on the £6 paid, and in pursuance of the provisions of the Statutes constituting the Company, all personal liability in respect of their Shares will thenceforth cease.

(Signed)

W. PARRY RICHARDS,
 President.

11, King William Street, City,
 Jan. 13, 1846.

THE DIRECT BOMBAY AND MADRAS RAILWAY COMPANY.

(Provisionally Registered.)

Capital, £4,500,000, in 90,000 Shares of £50 each.

Deposit 5s. per Share.

Being the amount limited by the 7th and 8th Victoria, Cap. 110, with the provisions of which Act the Company have strictly complied; and no further call until the Local Surveys have been taken and reported to the Shareholders.

TEMPORARY OFFICES OF THE COMPANY—32, ELY PLACE, HOLBORN.

SECRETARY.

James Ward, Esq.

PUBLIC attention is naturally directed to the Continent of India, in these times of speculative enterprise, as a new and unexplored field for the investment of capital, from the conviction that the yet undeveloped resources of its wealth, its industry, and its productive power, will richly and amply remunerate the speculator.

The millions who people that vast and fertile region of the globe, only require the impulse of enterprise to call forth the almost boundless riches that immediately surround them; and were they possessed of that great artery of civilization—Railroads, the current of their political and industrial strength would instantly become enlarged, not only in volume, but in richness also.

If we glance at the Continent of India, we find our power mainly concentrated on three points on the coast, Calcutta, Madras, and Bombay; which form an irregular triangle, the base of which may be termed Madras and Calcutta, and the apex, Bombay; and the great bulk of the wealth and physical power of India is enclosed within that figure, therefore it becomes a matter of the prime importance to have the intersecting lines of our empire as perfect as possible, so that our power may be felt at every point, and our influence extended to every part. From the want of this concentrative power, India has become almost a burden to the mother-country, barely paying its executive administration, in lieu of being a lucrative possession, a wealth-yielding appendage.

To obviate this great and glaring defect in our Anglo-Indian empire, it is only necessary to extend to her the same means of communication that we possess at home ; to bring, in short, the great centres of her internal power nearer to each other ; and instead of depending upon her rivers as lines of traffic and intercourse, she ought to have a well-arranged net-work of Railway extending over her surface ; then she would increase in power, and augment in riches.

THE DIRECT BOMBAY AND MADRAS RAILWAY is projected to carry out, in part, this noble scheme ; and a single glance at the map must convince the most cautious calculator that the project is well founded, and the line of route happily chosen to effect its purpose ; as it will intersect the most wealthy and industrious provinces of the Continent of India, the Carnatic and the Mysore, which abound in natural productions, in manufacturing industry, and in agricultural wealth.

The two great presidencies of Madras and Bombay will be brought within a few hours', instead of months', journey of each other ; and instead of vessels sailing round the coast some hundreds of miles, as heretofore, with their costly cargoes, the latter can be easily transported to Bombay for shipment, and at infinitely less cost—a matter of first-rate importance.

The district traversed by the DIRECT BOMBAY AND MADRAS RAILWAY contains upwards of twenty millions of inhabitants ; and the wants and industry of this large body already yield a considerable tonnage, although in a comparative state of barbarous communication. In the report of the Bombay Chamber of Commerce, we find that the traffic to and from that city amounts to 187,343 tons annually, consisting chiefly of cotton and salt. These two items form merely a fraction of the requirements of the Indians. Bombay is unapproachable except by a dangerous and expensive sea-board, and a cheap and safe communication can alone render available her internal resources. Cotton has now to be transported 500 miles to the coast, to reach Bombay for shipment. A railway would naturally obviate so circuitous and expensive a route. Some idea may be formed of the destruction and delay occasioned by these journeys, when we state that the cotton is carried on the backs of oxen, at the rate of ten miles per day, which enormously augments its shipment price. The present cost of conveyance from Nagpore to the port of shipment is from 14*l.* to 20*l.* a ton, and the charge by rail of twopence a ton per mile, would amount to 4*l.* 3*s.* 4*d.*—a considerable difference. The same facts prevail in regard to silk, and other commodities which are of the first importance to our manufacturing interests.

This Line will also bring nearer to us the fine island of Ceylon, with all its rich productions, commencing as it will at Madras, and taking in its course Arcot, Bangaloor, Serar, Darwar, Mundapoor, Raybough, Muchander-gar, Conoor, Sattara, Pandoo, Poonendar, Poonah, Junnere, Badlapoor, and through the Nunny Gaut to Bombay ; thus absorbing the interests and traffic of upwards of thirty first-rate cities, and from 400 to 500 towns, in the most densely populated part of India, facilitating the conveyance of cotton, coffee, tobacco, opium, sugar, silk, senna, gum, cassia, dye-woods, hides, furs, lac, betel-nut, saltpetre, spices, fire-wood, charcoal, coal, corn, and various kinds of grain, indigo, &c., &c., and the imports of treasure, manufactured and other goods, salt, ice, &c.

The passenger traffic alone, according to reasonable and careful calculation, will yield an ample per centage on the capital raised ; and the im-

mense tonnage of merchandize and raw produce must insure to the shareholders a profit beyond even the first-rate lines of England.

The promoters of the present scheme have received intelligence from their agents that the Line presents no engineering difficulties, and that the cost of construction must be moderate, labour being plentiful, and the purchase of land comparatively trifling, and wood, coal, and iron abounding in the immediate neighbourhood of the whole Line.

The management of the Company will be vested in a Board of Directors in London, in connexion with an influential branch in Bombay and Madras.

Care will be taken, in the Act constituting the Company, that the responsibility of the Shareholders will be limited to the amount of their subscriptions; and four per cent. interest will be paid upon the capital advanced up to the time of construction.

A reserve of 40,000 Shares will be made for India, which the projectors have much pleasure in stating will scarcely suffice for the demand already made.

The names of the influential and efficient Committee entrusted with its management will be published in a short time. In the mean time applications for Shares, in the following form, may be addressed to the Secretary, at the Company's Temporary Offices, 32, Ely Place, Holborn.

TO THE PROVISIONAL COMMITTEE OF THE DIRECT BOMBAY AND MADRAS
RAILWAY.

GENTLEMEN,

I shall feel obliged by your allotting to me Shares of 50*l.* each in the above Company; and if the deposit be not paid on or before the time specified in your letter of allotment, you may consider the application void.

Name in full
Residence
Trade or Profession
Date
Reference

HALLETTE'S ATMOSPHERIC RAILWAY AND
CANAL PROPULSION COMPANY.

Completely Registered.

NOTICE is hereby given to the Shareholders in this undertaking, and the public, that a plot of ground has been taken at the "Rosemary Branch," Peckham, where the earthwork of an experimental railway has been completed and ballasted; that the rails and propulsion tube are in course of being laid down, and that all the apparatus will be prepared with the least possible delay, for showing the application of Mons. Hallette's invention.

E. J. COLE, Secretary.

Offices, Winchester House, Old Broad Street, Jan. 20, 1846.

GREAT WESTERN RAILWAY OF CANADA.

TO THE SHAREHOLDERS OF THE GREAT WESTERN OF CANADA RAILWAY COMPANY.

THE attention of the undersigned, the Corresponding Committee of the Great Western of Canada Railway Company, has been called to a report in the "Morning Chronicle," of the 31st December, of a speech by Charles Franks, Esq., the Governor of the Canada Company, at a meeting of that Company, in which it is stated to be doubtful whether the Great Western of Canada Railway will now be made. The Committee feel that such a statement could only have proceeded from a gentleman of the character and standing of the Governor of the Canada Company under a misapprehension of the real facts of the case; and as they are aware that various mis-statements regarding the Company have from time to time been circulated, they consider that their duty to themselves and to the undertaking, as well as to their fellow Shareholders and the Directors in Canada, requires them to give an official reply.

The Great Western of Canada Railway was taken up by them because, after a careful examination of the facts connected with it, they were satisfied that it was an undertaking calculated to afford a large profit to those who should embark their capital in it. The facts contained in the original statement, which were carefully scrutinised before they were put forth, speak for themselves; and the Committee were convinced that a Line, which forms a connecting link between Railways, already paying 8 or 10 per cent., although less favourably situated, and only partially developed,—which presents such uncommon facilities for execution—which commands such a large existing traffic, and whose prospects of development, as forming a portion of the great highway between the rapidly rising Western States of America and the Atlantic, are almost unlimited;—afforded an opportunity for advantageous investment rarely equalled.

There was nothing provisional in the undertaking, which was already a constituted Company under an Act of the most favourable description, the preliminary expenses incurred being quite inconsiderable. Under these circumstances, the whole capital stock of the Company was subscribed for by responsible parties, who assumed the full liabilities of Shareholders, subject to the fulfilment, by the Directors in Canada, of the conditions stipulated for with Sir Allan Macnab and his colleagues, for ensuring protection and control to the English Shareholders. The whole stock having been taken, the public were not invited to apply for shares, but a large number were disposed of to parties whom the original subscribers thought likely to be useful to the undertaking, and others were sold openly like the stock of any other established company, to parties desirous of purchasing them, at prices, as the Committee fully believe, below their intrinsic value.

Under these circumstances, there is no analogy whatever between the position of the Great Western of Canada Railway Company and that of provisional companies whose share lists have not been completed. A temporary depression in the market value of the shares, owing to a panic affecting equally every other description of Railway property, may possibly

be a valid reason, in the latter case, for calling upon the Provisional Committees to dissolve the undertakings, and return the deposits. But in the case of the Great Western of Canada Railway Company, the Act is obtained, the share list is complete, the payment of the three first calls provided for in advance, and the Committee, who are large Shareholders in the undertaking, are all far too sensible of the advantages to be derived from the possession of a charter of such an extremely favourable nature, to be desirous of relinquishing them on account of a temporary depression in the money market, which has already in a great measure passed away.

As long as any doubt remains as to the aspect of our political relations with the United States, the Shareholders may rest assured that the Committee have much too large a stake in the concern themselves, to proceed otherwise than with extreme caution and prudence, before they sanction the commencement of any proceedings which might involve a heavy outlay or any further calls; but, with this exception, the Committee are aware of nothing calculated to create a doubt that the Line will be completed and in effective operation in two years from its commencement, and that it will at once assume a position as one of the best dividend paying Lines in America or elsewhere. Their confidence in the commercial capabilities of the undertaking is not only unshaken, but has been confirmed by all the information which they have subsequently received, as well as by the opinion of many gentlemen of the highest respectability intimately acquainted with Canada. There is also a strong probability that the Line may be constructed for a sum very far within the amount of capital originally stated; and with a view to test this, and to pave the way for an active commencement of operations at the earliest period and in the most efficient and economical manner, the Committee are making arrangements for obtaining a detailed survey and report, the result of which will be duly communicated to the Shareholders.

The numerous public meetings which have been held in the colony in favour of the Great Western Railway, the testimony of the colonial press, and the enthusiasm with which the intelligence of the success of Sir Allan Macnab's mission to England has been received in Canada, afford the best proof of the estimation in which the Line is held in the province.

Entertaining this confidence in the goodness of the concern in which they are so largely embarked, the Committee can only advise those gentlemen who hold shares to rest assured that the undertaking would never have been entered into or persevered in by the Committee, unless they were satisfied that it deserved the support of the public as a *safe and profitable* investment for money.

William James Chaplin.

Charles Devaux.

Henry John Enthoven.

Abel Lewes Gower.

George Hudson.

Samuel Laing.

John Masterman, Jun.

John Moss.

Thomas Smith.

Matthew Uzielli.

Gregory Seale Walters.

London, January 13th, 1846.

ASSOCIATION FOR THE PROMOTION
OF
IMPROVED STREET PAVING, CLEANSING,
AND DRAINAGE.

ESTABLISHED MARCH, 1842.

20, VERE STREET, OXFORD STREET.

PRESIDENT.

Charles Cochrane, Esq.

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His Grace the Duke of Grafton.
The Right Hon. Lord Robert Grosvenor,
M.P.
The Right Hon. the Earl of Erroll.
The Right Hon. Lord Dudley Coutts
Stuart.
The Right Hon. the Earl of Antrim.
Sir James Clark, Bart., M.D.
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The Right Hon. the Earl of Devon.
The Right Hon. Lord Viscount Ranelagh.
The Right Rev. the Lord Bishop of Durham.
The Right Hon. Lord Nugent.
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E. D. Moore, Esq.
Mr. Mivart.
Dr. W. Marsden.
Dr. Serny.

TREASURER.

B. Bond Cabbell, Esq., F.R.S.

SECRETARY AND SURVEYOR.

Mr. M. Davies.

COLLECTOR.

Mr. I. Hailes.

BANKERS.

Sir Claude Scott, Bart., and Co.

THE objects of the Association are to promote the improvement of the Paving, Cleansing, and Drainage of the Streets, Courts, Alleys, Ways, and Habitations of the Metropolis and other Cities, Towns, and Villages, with a view thereby to ameliorate the condition and contribute to the health of all classes of society.

To collect and disseminate correct information, and to invite the attention of the legislature, municipal authorities, and the public to these important objects.

To form a Repository for models and apparatus calculated to promote and illustrate the purposes of the Association.

To invite the co-operation of men eminent for their scientific and practical experience, and to give encouragement to those inventions which tend to advance the objects of the Association.

EXTRACTS FROM BYE-LAWS.

"No questions or objects of a political tendency shall be discussed or promoted at the meetings of the Association.

"Patentees, Proprietors, and Expositors, or persons belonging to, or employed under any Board of Direction, having a pecuniary interest in promoting any mode, or the use of any article, for Paving, Cleansing, or Drainage, may be admitted members of the Association, but shall not be eligible to act as members of the Council.

"An annual subscription of One Guinea shall constitute a member."

An important result in connexion with the improved Cleansing of the Streets, will be the employment of Thousands of the able-bodied poor.

RELIEF OF METROPOLITAN DESTITUTION,

AND

EMPLOYMENT OF THE POOR DURING INCLEMENT SEASONS, AND HEAVY FALLS OF SNOW.

THE Commissioners of Sewers for the City of London having kindly permitted a Philanthropic Association, composed of various noblemen and gentlemen, to demonstrate to what state of perfection the streets may be kept clean, the public are informed that the following streets are now being cleansed by the Association:—Cheapside, Cornhill, Bank, Royal Exchange, Newgate, King, Gresham, Moorgate, Throgmorton, and Threadneedle Streets, and Tokenhouse Yard, &c.

Eighty men are now employed, at two shillings and sixpence per day, and one hundred and sixty will be employed as soon as the funds admit of it.

The whole of the operations are supported by voluntary contributions.

BENJAMIN BOND CABBELL, ESQ., TREASURER.

As the Council are very anxious to encourage among the men habits of industry, cleanliness, and neatness of apparel, they beg to state that a present of fifty pairs of trousers, or one hundred smock frocks, will be considered equivalent to a donation of 25*l.*; a present of one hundred long brooms or mops to a donation of 10*l.*

The under-mentioned bankers have kindly consented to receive subscriptions :—Sir Claude Scott, Bart., and Co.; the London and Westminster Bank and its Branches; Drummond and Co.; Bouverie and Co.; Ransom and Co.; Union Bank of London and its Branches; Lubbock and Co.; Robarts and Co.; Bosanquet and Co.; Prescott, Grote, and Co.; Hanburys and Co.; Sir Charles Price and Co.; Cocks, Biddulph, and Co.; Hankeys and Co.; Herries and Co.; Fuller and Co.; London and Dublin Bank; National Bank of Ireland; London Joint Stock Bank; Williams, Deacon, and Co.; Hopkinson and Co.; Strachan, Paul, and Co.; Hallett and Co.; at the Hall of Commerce; the London Tavern; and by the Secretary of the Association, at the Offices, 20, Vere Street, Oxford Street.

LIST OF SUBSCRIPTIONS RECEIVED THIS DAY:

	£	s.	d.
Charles Cochrane, Esq., President of the Association .	100	0	0
Luke J. Hansard, Esq.	50	0	0
Messrs. Coutts and Co.	10	0	0
The Misses Browne	5	0	0
The Rev. Dr. Spranger	5	0	0
The Rev. J. Spranger	1	0	0
Hyde Clarke, Esq.	5	5	0
Alfred Hyde Clarke, Esq.	3	3	0
Edwin Hyde Clarke, Esq.	2	2	0
F. T.	1	1	0
B. C.	1	1	0
Sir George Staunton, Bart., M.P.	10	0	0
H. F. Richardson, Esq.	5	5	0
J. S. Buckingham, Esq.	1	1	0
Mr. Henry Dodd, one of the Contractors for Cleansing	5	0	0

By order,

M. DAVIES, Secretary.

20, Vere Street, Oxford Street.

THE LONDON SEWAGE COMPANY.

Provisionally Registered.

Capital £1,500,000, in 37,500 Shares of £40 each.

Deposit £2 4s. per Share.

BANKERS.

Messrs. Williams, Deacon, Labouchere, Thornton, and Co., 20, Birchlin Lane.

ENGINEER.

Thomas Wicksteed, Esq., Engineer to the East London, the Grand Junction, Kent, Southwark and Vauxhall Water Works, in London; and to the Hull and Wolverhampton Water Works.

ARCHITECTS AND SURVEYORS.

John Blyth, Esq., Aldersgate Street, and R. C. Carpenter, Esq., Guildford Street.

CONSULTING CHEMIST.

Arthur Aikin, Esq., F.L.S., F.G.S., &c., &c., Lecturer on Chemistry at Guy's Hospital, and Vice-President of the London Chemical Society.

ASSISTANT CHEMIST.

Mr. Nash.

SOLICITORS.

Messrs. Wood and Blake, 8, Falcon Street, City.

SECRETARY.

Andrew Martin, Esq., 124, Bishopsgate Street Within.

GREAT anxiety has been felt of late, both by the Government and the Corporation of the City of London, in regard to the removal of long existing evils, consequent on the imperfect system of draining in many parts of the Metropolis, and the pollution of the Thames by the discharge into its waters of the contents of all the public Sewers; but, notwithstanding the prevailing desire that these evils should be remedied, nothing fully adapted to effect this important object has been done, and no practicable plan has yet been brought under the notice of the Public.

Sharing in the general anxiety on this subject, and desirous to apply a remedy that shall meet all exigencies, the promoters of the "London Sewage Company" have established it under favourable circumstances, which enable them to promise the complete removal of the evils referred to, in the shortest period possible.

In regard to the Sewage, (or the contents of the Sewers discharged into the Thames,) it is well known that it is carried up and down the river, with the flow and ebb of each day's tide. The earthy portion, settling gradually to the bottom, leaves the shore at low water in a most filthy state, whilst the most noxious gases escape on every side, vitiating the atmosphere, and generating agues and fevers; and the banks of the Thames, which ought

to be the most pleasant abodes in England, are amongst the most unhealthy and dangerous.

At present the drainage of many parts of London is almost impossible, for, as the Thames is the only receptacle for the Sewage, there can be no drainage where a sewer, constructed at the usual depth, would be under low-water mark. This system entails also great unnecessary expense in the construction of sewers, for, being open to the tide, and receiving its waters twice each day as they flow, (all discharge during that time being prevented,) they become in fact reservoirs, not drains, and must therefore be made of a much larger size than would be required, were the contents carried off in an uninterrupted current.

In order to remedy these evils, and to accomplish the other objects in view, it is intended to construct, on both sides of the Thames, an intercepting sewer, or drain, at a considerable depth under the existing sewers, but communicating with them by means of shafts, through which the whole contents, solid and liquid, now discharged into the Thames, will pass into the intercepting sewers; and being carried off by them in a regular and continuous flow, that accumulation of the heavy particles of the sewage, now so common and so dangerous, will, in a great measure, be prevented. The great advantage of such an arrangement may be seen from the following remarks of Mr. Aikin, the Consulting Chemist of the Company. "From the facility with which the various matters discharged into the Sewers undergo decomposition, when diluted with water, and at a favourable temperature, it is evident that the shorter the time that they remain in the Sewers, the more valuable they will be, because the less decomposed. It may, therefore, be confidently anticipated that a plan which, by means of a constant current, clears out these matters from the Sewers in proportion as they are poured in, will furnish them in a state considerably more beneficial to the farmer, and nearly approaching to that of night-soil, which is considered as the richest of all manures."

By this arrangement, also, drainage may be obtained in the very lowest parts of London and its suburbs, and as the intercepting sewers will be large enough to carry off more than twice the amount of the present sewage, encouragement is thus given to increase and extend drainage, where it is imperfect, or where at present there is none.

The Sewage being thus removed underground, there will be no objectionable exposure or nuisance; and at the reservoirs, to be constructed on marsh lands, on the north side at the junction of Barking Creek with the Thames, and on the south between Greenwich and Woolwich, means will be taken to prevent any effluvia from being perceptible beyond the limits of the Company's works.

In effecting these very desirable ends, another most important benefit will be obtained, calculated to be of great advantage, in many respects, to the country at large. The Sewage, which now wastes in the Thames, vitiating and polluting its waters, and spreading miasmatic vapours over the densely-peopled city on both the banks, may become, when properly applied, one of the surest elements of national prosperity. Experiments have amply proved that, as a manure for land, it possesses valuable properties and powers for fertilizing and increasing the productiveness of the soil; and land-owners and farmers, to whom this fact is very generally known, will have provided for them additional and most efficient means of agricultural improvement.

Nor should it be overlooked that, in thus making use of a manure which is found at our door, the country will save a great part of the very large sum now annually expended in the import of manures.

Thus regarded, the objects of the LONDON SEWAGE COMPANY must be considered of an importance not less than national, and deserving public support; whilst estimates, founded on the most careful calculations, assure an ample return on the capital required for their attainment; in corroboration of which reference may be made to a Report lately received from the engineer, and now printed, from which the following is an Extract:

"The cost of the proposed Sewers, Reservoirs, Buildings, Wharfs, Machinery and Land on both sides of the River, including all Engineering expenses from the commencement to the termination of the works, except the expenses of Parliamentary opposition, will not exceed . . .	£1,300,000
"Leaving for Law and Parliamentary expenses, and for real or imaginary cases of compensation	200,000
	<hr/>
	£1,500,000
"The total annual expenses of carrying on the works, including labour, coals for engines and for drying the manure, lime, offices, officers, rent, taxes, repairs of works and machinery, will not exceed	£300,000
"Reserved Fund for renewal of works, improvement of the existing sewers, if beneficial to the Company, &c. 5 per cent. on Capital	75,000
"Profit 15 per cent.	225,000
	<hr/>
	600,000
	<hr/>
"Revenue from 206,590 tons of Manure in a highly dried state, compressed and packed at £3 per ton	619,770 "

The total quantity of sewage water at present discharged into the river, on both sides, amounts daily to 9,502,720 cubic feet, from which the consulting chemist of the Company estimates, after most careful experiments, that at least 568 tons of highly valuable solid manure may be extracted, yielding annually the quantity stated above, 206,590 tons. Hereafter this will most probably be considerably increased, for it cannot be doubted that advantage will be readily taken of the facilities which the London Sewage Company's plans will afford for improving and extending drainage.

The price, when compared with guano, (which brings £6 to £8 for inferior and common qualities, and £12 for the best,) is very low, and the substitution of this manure for the foreign will save to the country not less than £600,000 per annum.

The liability of Shareholders will be limited to the amount of their Subscriptions ; and power will be applied for to allow interest at the rate of four per cent. per annum on the deposits and future calls, from the period of the Company's obtaining the required Act of Parliament, until its works shall be in operation ; this being warranted by the prospect of a sufficient profit being obtained within the first two years after the Company's incorporation.

Application for Copies of the Engineer's Report, or for Shares, accompanied, in the latter case, by a reference to a member of the Provisional Committee, a Banker, or other respectable parties, may be addressed to the Solicitors, or to the Secretary.

LONDON SEWAGE COMPANY.

THE Engineering Plans have been deposited, and the necessary notices served, and every requirement of the Standing Orders of both Houses of Parliament has been complied with. A very valuable Report by the Engineer has been received and adopted, and which is ready for delivery to the Shareholders and Public.

Applications for Shares or Prospectuses may be made to the Secretary.

ANDREW MARTIN,

Secretary.

January, 17th, 1846.

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PARKINS'S SYSTEM OF LOCOMOTION.

A CHALLENGE TO MR. CUBITT.

The Viaduct at Barentin, 100 feet high, has fallen down like a pack of cards. The bridge over the Black Ditch, on the Croydon Line, fell as soon as it was built ; and now a bridge near Tunbridge, on the London and Dover Line, has fallen, through the weight of the engine, killing the driver, &c. What other bridge or viaduct will next fall ? PARKIN and PETTITT dispense with bridges and locomotives, and their Viaducts cannot fall. Mr. Parkin challenges Mr. Cubitt, or any eminent engineer, to a discussion in any newspaper on the simplicity, efficiency, economy and safety of his system, that the public may know that there is one system at least both safe and cheap. A working model is exhibited, gratis, at Gintherr and Staples', 11, Basing Lane.

RAILWAY ACCIDENTS AND THEIR REMEDIES.

LEE'S PATENT BREAKS.

THE amazing increase of Railways, and the rapidity with which they are superseding all other roads in connecting together each important Town in the United Kingdom with every other, are forcing upon the public attention the paramount necessity of devising and adopting every possible means of conducting this rapid mode of conveyance with entire safety to the passengers; or, at any rate, with the least practicable liability to accidents.

The details of the accidents which have from time to time occurred, are too painful to be dwelt upon for any purpose less important than that of endeavouring to ascertain the circumstances whereby these sad casualties have been produced. But with this high object in view, we are *all* called upon to give our best attention to these calamitous occurrences, and we may feel assured that no such inquiries will be fruitless, provided they are conducted with a sincere disposition to examine all the peculiarities of each case, and to mark wherein lie those practical defects of construction, or of arrangement, by which Railway accidents are now produced, or rendered more destructive, and by the remedy of which greater safety may confidently be secured.

By the reports of the accidents we are constantly informed, that the *difficulty of suddenly, and on instant occasion, arresting the progress of the train*, is a circumstance attendant on nearly every case of accident, and greatly promotive of fatal consequences. We read, that even with the prospect of certain destruction, the ill-fated passengers are inevitably carried *hundreds of yards*, before the train can be stopped; that after the force of the steam is quelled, the momentum of the train mocks, for a fatal period, the desperate attempts of the guards; and that during this period collision frequently happens, which, could the carriages have been stopped in a shorter space, might have been altogether avoided.

In plain terms, the superinducing cause of such accidents is not a necessary consequence of the velocity of the train, or of the ill-timed movements by which the collision is immediately brought about, but simply the *defective apparatus in use for stopping the wheels of the carriages—the imperfect breaks applied*.

Under this conviction, therefore, we must regard with interest all attempts made to introduce improvements in this apparatus, and wherever such improvements are demonstrated to be really promotive of the end sought, it becomes a public and a legislative duty to see that they are fully and fairly carried into general practice.

With this view it is desirable that public attention be at once directed to some most important improvements in the breaking apparatus of Railway carriages, patented by Mr. John Lee, and which realize all that can be expected of safety in railway travelling. Under the kind permission of those energetic engineers, Mr. Cubitt and Mr. Gregory, these improvements have been tried with complete success. Those who desire that the community should reap the benefit of improvements designed by the ingenuity of its members, and who can imagine the obstacles which oppose every inventor, will accord to those gentlemen their gratitude for thus enabling Mr. Lee to offer to engineers and the scientific public generally, a proof beyond dispute of the great value of his inventions in a commercial, as well as humane point of view.

Mr. Lee's break is completely designed to act not only on the wheel, but also actually *on the rail itself*. In all other breaks the power of stopping is derived only from the friction produced between the rail and the small part of the periphery of the wheel in contact with it; this does not amount to more than one inch and a-half in length of surface of rail. Mr. Lee's break not only secures this friction, but also adds to it a length of fifteen inches, on each break, of friction between it and the rail.

On one pair of Wheels, therefore, these breaks produce thirty-three inches of friction, instead of three, which is all that is given by the old breaks, thus multiplying the stopping power no less than eleven times. The surface of the Patent Break which comes into

contact with the rail is faced with copper, and thus the most perfect adhesion is obtained. The apparatus by which the break is put into action, or withdrawn, is simple and effective; not liable to derangement, and may be instantly worked. The break is let down upon the rail, and enabled to act, to a great extent, without actually locking the wheel; and indeed, a power of breaking may be thus obtained *ten times* that now possessed without *stopping the wheel*, thus saving much of that great and costly wear of wheel-tires, which forms so serious an item in the current expenses of railways.

The Apparatus has already received the commendation of many scientific Gentlemen and of several Engineers, and is about to be applied to the Carriages on many of the Railways. The Guards who have used it, speak in the highest terms of its efficacy and ease of working, and express their hope, that shortly no other breaks will be allowed to be used.

Since the 12th of June, the apparatus has been in daily use, and has been put into action between seven and eight thousand times during that period, earning the warm encomiums of all who have witnessed its powers.

One instance sufficiently striking, yet by no means uncommon, of the power of this break, may be quoted:—On the 17th June, a wet day, a train consisting of nineteen Carriages, besides Engine and Tender, descending the incline (at 1 in 100) at a velocity of thirty-five miles per hour, was, by the use of only one of these single pair breaks, brought to a dead stand in the space of fifty-five yards.

Another most important feature of these improvements is, that they are entirely independent of the Carriage, and do not impart the least unpleasant motion to it. Indeed they are constantly put into action on the steep incline on the Croydon Railway, and again released, without the passengers in the Break-carriage being at all aware of it; all Railway Travellers will understand how highly to appreciate this valuable peculiarity. To the delicate and the invalid, who are compelled to travel by railway, this feature alone is of vital benefit and importance.

And with the overwhelming advantage, at which only a glance is here presented, the Patent Break can be applied at a somewhat less cost than that of the defective and inefficacious apparatus now in common use. A Double Break which acts simultaneously on four wheels is now in use, and with this apparatus one breaking carriage does the work of twenty-two of the common single break carriages.

The leading advantages of these momentous improvements are therefore:—

First:—Incalculable greater safety to the passengers; and,

Second:—Economy in the first cost and current expenses of Break-apparatus, by the less number required.

The Apparatus is to be seen daily at the London Bridge Station, between the Trains; and all interested in this important subject, (and who are not!) particularly Directors and Engineers of British and Foreign Railways, are recommended to inspect it, and avail themselves of Mr. Lee's explanations of its merits.

Communications from parties desirous of further information, and of adopting this Invention under licence or otherwise, are requested to be addressed to Mr. J. LEE, F.S.A., 1, Nelson Square, Blackfriars Road.

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In France, Paris and Rouen, and Havre—Orleans, and Bordeaux, St. Etienne, and several others, and for 577 miles more.

The Board of Ordnance, after trying various processes, have come to the conclusion that this is the best preservative, and the patentee has just prepared fifty thousand yards of canvass for their use.

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'We speak for the Church, and we do so as reverend and faithful sons; for such we hope ever to remain. We speak for the Crown, as it becomes loyal and loving subjects; and our regret is well known that we can but speak for it as it is, with shorn power and dimmed lustre. And last of all, we speak, and will speak, for the People—the people, with whose sorrows we sympathize, whose wrongs it is our earnest wish to see redressed, and for whose happiness is our warmest prayer. This is our three-fold and yet single cause; and for it, to the best of our ability, will we, constant and unwearied, strive to do battle manfully and well.' (Vide No. VI., p. 574.

As a Literary Review, we shall continue to maintain a firm and independent position. Such a Monthly Journal has been, we think, long required; and, without at all interfering with our Quarterly contemporaries, we hope to assist them in honestly ministering to the necessities of this reading age.

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MESSRS. BAUGHAN and CO., having a perfect knowledge of all the *financial arrangements of Foreign States*, and the existing conditions and probable results of *railway shares*, are enabled to *furnish detailed information and data*, which may be relied upon, to all parties seeking permanent investments. Messrs. B. and Co. buy and sell *English and Foreign railway shares* of every description at the different prices of the day. *The lists of prices kept at the offices.* Attendance from 11 till 2.

**NOTICE TO SPECULATORS IN FOREIGN STOCKS,
RAILWAY SHARES, ETC.**

EVERY information on the subject of speculation in the Purchase or Sale of Foreign Stocks, Railway Shares, &c., and a Daily List of the Current Prices, with the nature of Time Bargains explained, may be had gratuitously by a personal application, or by letter to

LEWIS JACKSON and CO.,
Foreign Stock and Railway Share Agents, London.
11, Pinner's Hall, Old Broad Street.

RAILWAY SHARES, ETC., ETC., BY AUCTION.

TO SHAREHOLDERS AND CAPITALISTS.

ENCOURAGED by the recent increase of business in the sale and transfer of shares in the various public Companies, British and Foreign, and acting under the advice of friends and capitalists, Messrs. LAMOND and Co., licensed auctioneers, have deemed the additional occupation thus created, together with the abolition of the auction duties, a fit opportunity for opening a separate and independent practice, to which they have determined to devote their undivided attention, declining all other business for this express purpose, viz. :—

“ The sale by Auction of shares in railways, British and Foreign; Assurance Mining, Cemetery and Canal Companies; Joint Stock Banks; Debentures, Bonds,” &c., &c.—in short, of every description of interest connected with the numerous public Companies formed and now forming in the commercial world.

In arriving at this determination, it will be the anxious desire of Messrs Lamond and Co. to give every information and satisfaction to their friends and the public, and looking at the probable magnitude of operations yielding adequate remuneration, they have resolved to adopt a low scale of *ad valorem* charge, by way of commission; and where sales are not effected, a small fee (merely sufficient to cover the expenses of printing, advertising, &c., &c.) for putting up the lots.

To avoid any misunderstanding a deposit of 10 per cent. will be required on all purchases at the hammer, unless the same be effected through Bankers, Members of the Stock Exchange, or parties well known to the Auctioneers; and a settlement of the remainder of the purchase-money must in every case be made in the course of the following day, during the usual hours of business, or the sale will be void and the deposit forfeited, except where special transfers are required, and to such all possible expedition will be given.

As all scrip and share certificates must be deposited for examination at least one day previously to their being offered to public competition, Messrs. Masterman and Co., Bankers, Nicholas Lane, and Messrs. Ransom and Co., Bankers, Pall Mall East, London, have been pleased to allow reference to be made to them, in regard to the respectability of the firm of Lamond and Co.

Their sales are held every Tuesday and Friday, in their Rooms at the under-mentioned Hall, at two o'clock precisely, to which place letters and orders containing instructions are respectfully requested to be addressed, and where one or more of the partners will be always in attendance to be conferred with, if required; and advices of the operations of the day will be forwarded by the first post after each day's sale and the proceeds paid according to their correspondents' intentions.

Messrs. Lamond and Co. further propose to take subscriptions of a Guinea per annum from all parties desiring to have Catalogues sent them on the night before the sale, except Bankers, Members of the Stock Exchange, and Subscribers to the Hall of Commerce, to whom they will on application be delivered gratis.

SCALE OF CHARGES.

One Shilling per share	under £20
One Shilling and Sixpence	„ 50
Two Shillings and Sixpence	„ 100
Five Shillings for all above.	

And Two Shillings and Sixpence per lot offered for sale, (be the number of shares in such lot more or less,) when sales are not effected.

Hall of Commerce,
Threadneedle Street, London.

THE DIRECT BOMBAY AND MADRAS RAILWAY COMPANY.

(Provisionally Registered.)

Capital, £4,500,000, in 90,000 Shares of £50 each.

Deposit 5s. per Share.

Being the amount limited by the 7th and 8th Victoria, Cap. 110, with the provisions of which Act the Company have strictly complied; and no further call until the Local Surveys have been taken and reported to the Shareholders.

OFFICES OF THE COMPANY, 58, FENCHURCH STREET.

PROMOTER.

Captain BOUCHETTE, C.E., Son of the late Hon. Colonel Bouchette,
Surveyor-General for Canada.

PROSPECTUS.

PUBLIC attention is naturally directed to the Continent of India, in these times of speculative enterprise, as a new and unexplored field for the investment of capital, from the conviction that the yet undeveloped resources of its wealth, its industry, and its productive power, will richly and amply remunerate the speculator.

The millions who people that vast and fertile region of the globe, only require the impulse of enterprise to call forth the almost boundless riches that immediately surround them; and were they possessed of that great artery of civilization—Railroads, the current of their political and industrial strength would instantly become enlarged, not only in volume, but in richness also.

If we glance at the Continent of India, we find our power mainly concentrated on three points on the coast, Calcutta, Madras, and Bombay; which form an irregular triangle, the base of which may be termed Madras and Calcutta, and the apex, Bombay; and the great bulk of the wealth and physical power of India is enclosed within that figure, therefore it becomes a matter of the prime importance to have the intersecting lines of our empire as perfect as possible, so that our power may be felt at every point, and our influence extended to every part. From the want of this concentrative power, India has become almost a burden to the mother-country, barely paying its executive administration, in lieu of being a lucrative possession, a wealth-yielding appendage.

To obviate this great and glaring defect in our Anglo-Indian empire, it is only necessary to extend to her the same means of communication that we possess at home ; to bring, in short, the great centres of her internal power nearer to each other ; and instead of depending upon her rivers as lines of traffic and intercourse, she ought to have a well-arranged net-work of Railway extending over her surface ; then she would increase in power, and augment in riches.

THE DIRECT BOMBAY AND MADRAS RAILWAY is projected to carry out, in part, this noble scheme ; and a single glance at the map must convince the most cautious calculator that the project is well founded, and the line of route happily chosen to effect its purpose ; as it will intersect the most wealthy and industrious provinces of the Continent of India, the Carnatic and the Mysore, which abound in natural productions, in manufacturing industry, and in agricultural wealth.

The two great presidencies of Madras and Bombay will be brought within a few hours' journey of each other, and not months as heretofore : and in lieu of vessels making a long and dangerous voyage of some 5,400 miles, half round the entire peninsula of India, their costly cargoes may be easily conveyed to Bombay for shipment in a less number of hours than the voyage occupies days ; thus avoiding all risks of damage, speculation, wear and tear, &c., which in general characterize these voyages. The saving of insurance will also be immense—a matter of first-rate importance.

In a political point of view the line must be of almost incalculable importance, as it will intersect the great military depôts of the East India Company, and afford at all times a ready and prompt conveyance for troops, baggage, stores, artillery, and the cumbrous material which invariably attend their march.

The district traversed by the DIRECT BOMBAY AND MADRAS RAILWAY contains upwards of twenty millions of inhabitants ; and the wants and industry of this large body already yield a considerable tonnage, although in a comparative state of barbarous communication. In the report of the Bombay Chamber of Commerce, we find that the traffic to and from that city amounts to 187,343 tons annually, consisting chiefly of cotton and salt. These two items form merely a fraction of the requirements of the Indians. Bombay is unapproachable except by a dangerous and expensive sea-board, and a cheap and safe communication can alone render available her internal resources. Cotton has now to be transported 500 miles to the coast, to reach Bombay for shipment. A railway would naturally obviate so circuitous and expensive a route. Some idea may be formed of the destruction and delay occasioned by these journeys, when we state that the cotton is carried on the backs of oxen, at the rate of ten miles per day, which enormously augments its shipment price. The present cost of conveyance from Nagpore to the port of shipment is from 14*l.* to 20*l.* a ton, and the charge by rail, twopence a ton per mile, would amount to 4*l.* 3*s.* 4*d.*—a considerable difference. The same facts prevail in regard to silk, and other commodities which are of the first importance to our manufacturing interests.

Caro will be taken, in the Act constituting the Company, that the responsibility of the Shareholders will be limited to the amount of their subscriptions ; and four per cent. interest will be paid upon the capital advanced up to the time of construction.

A reserve of 40,000 Shares will be made for India, which the projectors

have much pleasure in stating will scarcely suffice for the demand already made.

The names of the influential and efficient Committee will be published in a short time. In the mean time applications for Shares, in the annexed form, may be addressed to the Secretary, at the Company's Office, 58, Fenchurch Street, and to the under-mentioned Sharebrokers and Agents:—Messrs. Hughson and Dobson, Edinburgh; Borthwick, Campbell and Co., Glasgow; Mr. Thomas Greaves, Manchester; Mr. J. R. Bone, Liverpool; Mr. R. Massey, 6, Temple Street, Birmingham; Borthwick and Co., Newcastle-on-Tyne; Mr. Charles S. Gilman, Norwich; Mr. Sandford, Exeter; Mr. J. W. Carr, Colchester; Mr. W. H. Land, Bristol; Messrs. Turnbull and Maister, Hull; Messrs. Dodsworth and Alderson, York; Messrs. Muncaster and Wilson, Sheffield; Mr. W. Miles, Worcester; Messrs. White and Son, Leamington and Warwick; Messrs. Browne and Clarke, Coventry; Mr. Percy Bolger, Gardener Street, Dublin; Messrs. Tyeth and Luscombe, Plymouth; Mr. J. Hurry, Spalding; Joseph Clark, jun., Southampton; Mr. John Caldecote, Bridge Street, Chester; Messrs. Smyth and De Bedats, Dublin; Messrs. Lang and Brown, Glasgow; Mr. W. H. Oliphant, Perth; Elgood and Harrison, Leicester; Mr. Thomas Hartley, Leeds; Mr. Richard Richardson, Halifax.

Feb. 2, 1846.

JAMES WARD, Secretary.

FORM OF APPLICATION FOR SHARES.

TO THE PROVISIONAL COMMITTEE OF THE DIRECT BOMBAY AND MADRAS
RAILWAY.

GENTLEMEN,

I shall feel obliged by your allotting to me Shares of 50*l*. each in the above Company; and if the deposit be not paid on or before the time specified in your letter of allotment, you may consider this application void.

Name in full

Residence

Trade or Profession

Date

Reference

TO ARCHITECTS, BUILDERS, ENGINEERS, COLONIAL
AGENTS, and Others.

J. WOOLCOTT, 6, Great Winchester Street.

Every description of *Castings*, and *Wrought Ironwork*, *Steam Engines*, *Machinery*, *Boilers*, &c., for Building, Locomotive, Marine, Mining, and general manufacturing purposes.

Machinery valued and disposed of.

DUCHY OF NASSAU RAILWAYS.

BY CONCESSION OF THE GOVERNMENT OF NASSAU.

OFFICES, 43, MOORGATE STREET.

1st Branch.—From Wiesbaden to Limburg, and from Limburg to Coblenz.

2nd Branch.—From Limburg to Cologne.

3rd Branch.—From Limburg to Giessen.

Capital, £2,500,000, in 125,000 Shares of £20 each.

Deposit, £2 per Share.

CHAIRMAN.

HUBERT DE BURGH, Esq., West Drayton, Middlesex.

SOLICITOR.

F. F. GELL, Esq., Carlton Chambers, 8, Regent Street.

Prospectuses, Maps, and every information can be obtained at the Company's Offices, where applications for Shares must be made, also at the Solicitors; T. Uzielli, Esq., Stockbroker, 75, Old Broad Street; Messrs. Brown, Aiken and Co., Liverpool; Messrs. Cardwell and Sons, Manchester; or, Messrs. Collis and Smith, Birmingham.

R. MORTON CALEY, Secretary pro tem.

JOURNAL DES TRAVAUX PUBLICS

DES CHEMINS DE FER, DU COMMERCE ET DE L'INDUSTRIE.

BULLETIN DES ADJUDICATIONS ADMINISTRATIVES.

Le Journal des Travaux Publics, va entrer dans sa quatrième année d'existence. Sa publicité, qui n'a cessé de s'étendre, embrasse aujourd'hui toutes les questions que soulève l'exécution des grands travaux publics en France, en Angleterre, en Belgique, en Allemagne, dans tous les pays enfin où ces questions sont à l'ordre du jour. Ce journal s'adresse à une classe considérable de lecteurs intéressés à être tenus au courant de toutes les grandes entreprises qui s'exécutent. Il est LE SEUL qui donne d'une manière complète et officielle les avis d'adjudications de travaux ou de fournitures pour tout le royaume, ainsi que les résultats des adjudications prononcées. On peut dire qu'il est indispensable à toutes les personnes qui s'occupent de ces affaires.—*Le JOURNAL DES TRAVAUX PUBLICS paraît deux fois par semaine, le Jeudi et le Dimanche.*—On s'abonne aux bureaux de Postes et aux Messageries.

PARIS.—Un an, 20 fr.; Six mois, 12 fr. Trois mois, 6 fr.
DEPARTEMENTS.—Un an, 26 fr. Six mois, 14 fr. Trois mois, 8 fr.

BUREAUX, RUE MONTMARTRE, 131.

Les Lettres non affranchies seront refusées.

PRELIMINARY ANNOUNCEMENT.

THE METROPOLITAN NECROPOLIS,
OR
GRAND EASTERN AND WESTERN CEMETERIES ASSOCIATION.

Provisionally Registered, according to Act of Parliament.

Capital, £1,000,000, in Shares of £25 each.

Deposit, £1 7s. 6d. per Share.

THE object of the Association embraces the recommendations of the Commissioners appointed to report on the "Health of Towns, to prevent the interment of the dead in or near the habitations of the living," by establishing two extensive cemeteries on the banks of the Thames, at a convenient distance east and west of the metropolis, which, by their position, in addition to the usual mode of interment, will afford the facility of a more economical conveyance by water. It is also proposed to assist in establishing general cemeteries in the neighbourhood of other towns in Great Britain and Ireland.

In the most crowded thoroughfares of the metropolis, even in the midst of depravity and crime, we see grave-yards towering above us, the pestilential effluvia tainting the very atmosphere in which we are compelled to move and live. Our Christian feelings are continually outraged by revolting details of violated sanctuaries, and gross and horrible indignities offered to the dead, to the great scandal of our national religion and character as a Christian people. Many attempts have been made to remove this nuisance and reproach from among us; and recent events occurring in Spafields, and other burial-grounds of the metropolis as described in the public journals, and in the evidence given before the committee of the House of Commons, have awakened one general feeling of horror and indignation in the public mind, and an anxious desire on the part of the legislature to abolish at once and for ever burials within the limits of the metropolis and other great cities of the empire.

London, and its thickly populated suburbs, number now 2,000,000 of souls, and in no very distant period of time this population must be doubled. Almost all its grave-yards are already full, and the newly-established cemeteries rapidly filling; it is obvious, therefore, that cemeteries of a sufficient magnitude are required, in order to meet the exigencies of the times, as well as the wishes of the legislature; and that they should possess every facility for ensuring economy of expenses and adaptation to every class of society, united with decent solemnity and religious observance, that while they meet the requirements of the poor, they can be made to administer to the feelings and wishes of the wealthy; and the promoters believe that the public will see and duly appreciate the great advantages opened by conveyance of the corpse to the cemeteries by water, this being auxiliary to, and not as replacing the present mode, and introduced more with the view

of general accommodation and securing economical charges, than for any purposes of novelty and display.

Extensive tracts of land have already been selected, having a fine river frontage for the reception of funerals by water, and approaches by land for the usual mode of interment; they unite position with every facility of access. Plans are also laid down for establishing stations, and houses for the reception of the corpse previous to its burial, a boon which cannot fail being appreciated by those who, from aversion, fear, or necessity, are desirous of having the dead immediately removed from their habitations; it will also meet the views of the "Health of Towns Committee," and assist the legislature in rendering it compulsory with the humbler classes to remove the decomposing corpse from rooms necessarily inhabited by the living. Steam and other boats will be constructed, and appropriately fitted up for the purpose of conveying the corpse, attendants, and mourners to the cemeteries.

Cemeteries have become highly popular in this country, and most deservedly so; for while they offer a sacred asylum for the mortal remains of those we admire, esteem and love, they may be made to afford to the inhabitants of crowded cities, when they are judiciously constructed, the means of health, of serious contemplation, and innocent recreation. In the neighbourhood of London they are rendered strikingly attractive to the eye, and to a certain extent are well adapted for the purposes of burial; but still, in the absence of the facilities now proposed, they are disposed at such an inconvenient distance as to place them wholly beyond the pecuniary means of the humbler classes, except in their immediate neighbourhood; they are also small when compared to the requirements of this and future generations. The grounds of the Great Metropolitan Necropolis will be laid out in a beautiful and appropriate manner, equally attractive to the living and suited to the sad solemnities of the dead, care being taken to preserve the solemn character of the place: thus, to the stern character of the ancient will be added the beauties of the "Pere la Chaise," and of our existing English cemeteries. They will be portioned off in deference to the feelings of sects and religions, and as their great extent renders them fitting for, so they will be opened to, the sad remains of mortality without reference to country or creed.

In order to carry out the recommendations of the Parliamentary Committee to the fullest extent, and to enable the legislature to abolish burials within the crowded parts of the metropolis, the association proposes to assume the right (when required to do so) to enter into public or private contracts for burials, with or without the co-operation of other public bodies or private individuals, to supply the material and to adopt such other measures as may be found necessary to ensure economy of burial to those who desire it, as well as due decorum of conveyance and interment of the deceased. It is proposed to erect in each ground a large pyramid, consisting of arched recesses, or catacombs. Groups of chapels, terraces, raised walks, rows and clumps of trees, and beds of flowers will also add to the general magnificence. It is also contemplated to erect in the centre of the group of chapels, in one of the cemeteries, a grand national mausoleum or temple, on the principle of Westminster Abbey, for the burial, the monuments, or the tablets of those who may be considered worthy of public testimonial; a permanent council of noblemen and gentlemen being

appointed to decide on the respective claims to this honour previous to its being granted.

The plans for the chapels, entrance-gates, and ornamental disposition of the grounds, are now under serious consideration; and the catacombs will be built with the view of affording accommodation on a scale of charges the most economical, or as consonant with the views of the friends of the deceased. Grounds for interment at various rates, either in perpetuity for families or separate bodies, may be obtained, with every facility to erect such memorials as their surviving friends may deem fit, in conformity to the rules of the association. From the fullest and most accurate information, and calculations made, the promoters, in the event of the bill for the abolition of burials in the crowded parts of the metropolis passing this session of Parliament, are prepared to state that the grounds will be effective for constant burial of twice the present population; while the charges for interment will be one half, and in many instances two thirds, less than now paid by the several classes of the community.

The capital of the association will be £1,000,000, with power to increase it, the original Shareholders having the preference of the newly created Shares. It will be divided into 40,000 Shares of £25 each, a deposit of £1 7s. 6d. per Share to be paid at the time of subscribing. This will be followed up by calls, duly noticed, of £2 per Share, as may be required, two months' notice being given of each call.

So soon as a committee of gentlemen capable of carrying out the objects contemplated is formed, prospectuses will be issued; in the mean time all further information may be obtained at the Offices of the Association, 32, Moorgate Street, City.

JOHN BOND, M.D., &c., Secretary.

MR. EISENBERG'S NEW WORK.

Just published, in one vol. 4to, price 1l. 1s.,

THE DISEASES OF THE FEET; or, Practical Information on the Symptoms, Causes, and Treatment of Corns, Bunions, and Callosities, with Instructions for the Management of the Hands and Nails.

By JOHN EISENBERG,

Author of "Practical Exposition of the Human Foot."

"The subject is one of such general interest, it comes home to the business and bosom, and even into the boots of all mankind; it will fall into the hands, and its many useful directions be fixed to the feet of numberless readers, who will derive considerable comfort and benefit from its perusal. From the long array of Mr. Eisenberg's published certificates from peers, potentates, statesmen and diplomatists, there can be little doubt as to his skill in eradicating these callosities, which is the grand object."—*Morning Post*, Jan. 2, 1846.

"We may follow in the dance of life if we avail ourselves of the good advice laid down by Mr. Eisenberg; the book exhibits as much taste in getting up as it does knowledge of the subject on which it is written, and for which Mr. Eisenberg has so justly acquired celebrity."—*Court Journal*, August 23, 1845.

"Mr. Eisenberg has displayed, with much judgment, the beauty of the mechanism of the human foot. He has, in his mode of treatment of diseases, exhibited great practical skill."—*Naval and Military Gazette*, August 23, 1845.

"The entire work is extremely well written, in a popular, but far from common or vulgar style. We warmly recommend its perusal to our readers."—*The British Friend of India Magazine*, Feb. 1846.

Published by HENRY RENSHAW, 356, Strand, London; and to be had of every Bookseller in the United Kingdom; also, at the Author's residence, 14, Cockspur Street, Charing Cross.

THE LONDON SEWAGE COMPANY.

Provisionally Registered.

Capital £1,500,000, in 37,500 Shares of £40 each.

Deposit £2 4s. per Share.

BANKERS.

Messrs. Williams, Deacon, Labouchere, Thornton, and Co., 20, Birchin Lane.

ENGINEER.

Thomas Wicksteed, Esq., Engineer to the East London, the Grand Junction, Kent, Southwark and Vauxhall Water Works, in London; and to the Hull and Wolverhampton Water Works.

ARCHITECTS AND SURVEYORS.

John Blyth, Esq., Aldersgate Street, and R. C. Carpenter, Esq., Guildford Street.

CONSULTING CHEMIST.

Arthur Aikin, Esq., F.L.S., F.G.S., &c., &c., Lecturer on Chemistry at Guy's Hospital, and Vice-President of the London Chemical Society.

ASSISTANT CHEMIST.

Mr. Nash.

SOLICITORS.

Messrs. Wood and Blake, 8, Falcon Street, City.

SECRETARY.

Andrew Martin, Esq., 124, Bishopsgate Street Within.

GREAT anxiety has been felt of late, both by the Government and the Corporation of the City of London, in regard to the removal of long existing evils, consequent on the imperfect system of draining in many parts of the Metropolis, and the pollution of the Thames by the discharge into its waters of the contents of all the public Sewers; but, notwithstanding the prevailing desire that these evils should be remedied, nothing fully adapted to effect this important object has been done, and no practicable plan has yet been brought under the notice of the Public.

Sharing in the general anxiety on this subject, and desirous to apply a remedy that shall meet all exigencies, the promoters of the "London Sewage Company" have established it under favourable circumstances, which enable them to promise the complete removal of the evils referred to, in the shortest period possible.

In regard to the Sewage, (or the contents of the Sewers discharged into the Thames,) it is well known that it is carried up and down the river, with the flow and ebb of each day's tide. The earthy portion, settling gradually to the bottom, leaves the shore at low water in a most filthy state, whilst the most noxious gases escape on every side, vitiating the atmosphere, and generating agues and fevers; and the banks of the Thames, which ought

to be the most pleasant abodes in England, are amongst the most unhealthy and dangerous.

At present the drainage of many parts of London is almost impossible, for, as the Thames is the only receptacle for the Sewage, there can be no drainage where a sewer, constructed at the usual depth, would be under low-water mark. This system entails also great unnecessary expense in the construction of sewers, for, being open to the tide, and receiving its waters twice each day as they flow, (all discharge during that time being prevented,) they become in fact reservoirs, not drains, and must therefore be made of a much larger size than would be required, were the contents carried off in an uninterrupted current.

In order to remedy these evils, and to accomplish the other objects in view, it is intended to construct, on both sides of the Thames, an intercepting sewer, or drain, at a considerable depth under the existing sewers, but communicating with them by means of shafts, through which the whole contents, solid and liquid, now discharged into the Thames, will pass into the intercepting sewers; and being carried off by them in a regular and continuous flow, that accumulation of the heavy particles of the sewage, now so common and so dangerous, will, in a great measure, be prevented. The great advantage of such an arrangement may be seen from the following remarks of Mr. Aikin, the Consulting Chemist of the Company. "From the facility with which the various matters discharged into the Sewers undergo decomposition, when diluted with water, and at a favourable temperature, it is evident that the shorter the time that they remain in the Sewers, the more valuable they will be, because the less decomposed. It may, therefore, be confidently anticipated that a plan which, by means of a constant current, clears out these matters from the Sewers in proportion as they are poured in, will furnish them in a state considerably more beneficial to the farmer, and nearly approaching to that of night-soil, which is considered as the richest of all manures."

By this arrangement, also, drainage may be obtained in the very lowest parts of London and its suburbs, and as the intercepting sewers will be large enough to carry off more than twice the amount of the present sewage, encouragement is thus given to increase and extend drainage, where it is imperfect, or where at present there is none.

The Sewage being thus removed underground, there will be no objectionable exposure or nuisance; and at the reservoirs, to be constructed on marsh lands, on the north side at the junction of Barking Creek with the Thames, and on the south between Greenwich and Woolwich, means will be taken to prevent any effluvium from being perceptible beyond the limits of the Company's works.

In effecting these very desirable ends, another most important benefit will be obtained, calculated to be of great advantage, in many respects, to the country at large. The Sewage, which now wastes in the Thames, vitiating and polluting its waters, and spreading miasmatic vapours over the densely-peopled city on both the banks, may become, when properly applied, one of the surest elements of national prosperity. Experiments have amply proved that, as a manure for land, it possesses valuable properties and powers for fertilizing and increasing the productiveness of the soil; and land-owners and farmers, to whom this fact is very generally known, will have provided for them additional and most efficient means of agricultural improvement.

Nor should it be overlooked that, in thus making use of a manure which is found at our door, the country will save a great part of the very large sum now annually expended in the import of manures.

Thus regarded, the objects of the LONDON SEWAGE COMPANY must be considered of an importance not less than national, and deserving public support; whilst estimates, founded on the most careful calculations, assure an ample return on the capital required for their attainment; in corroboration of which reference may be made to a Report lately received from the engineer, and now printed, from which the following is an Extract;

"The cost of the proposed Sewers, Reservoirs, Buildings, Wharfs, Machinery and Land on both sides of the River, including all Engineering expenses from the commencement to the termination of the works, except the expenses of Parliamentary opposition, will not exceed . . .	£1,300,000
"Leaving for Law and Parliamentary expenses, and for real or imaginary cases of compensation	200,000
	<hr/>
	£1,500,000
 "The total annual expenses of carrying on the works, including labour, coals for engines and for drying the manure, lime, offices, officers, rent, taxes, repairs of works and machinery, will not exceed	 £300,000
"Reserved Fund for renewal of works, improvement of the existing sewers, if beneficial to the Company, &c. 5 per cent. on Capital	75,000
"Profit 15 per cent.	225,000
	<hr/>
	£600,000
 "Revenue from 206,590 tons of Manure in a highly dried state, compressed and packed at £3 per ton	 619,770"

The total quantity of sewage water at present discharged into the river, on both sides, amounts daily to 9,502,720 cubic feet, from which the consulting chemist of the Company estimates, after most careful experiments, that at least 566 tons of highly valuable solid manure may be extracted, yielding annually the quantity stated above, 206,590 tons. Hereafter this will most probably be considerably increased, for it cannot be doubted that advantage will be readily taken of the facilities which the London Sewage Company's plans will afford for improving and extending drainage.

The price, when compared with guano, (which brings £6 to £8 for inferior and common qualities, and £12 for the best,) is very low, and the substitution of this manure for the foreign will save to the country not less than £600,000 per annum.

The liability of Shareholders will be limited to the amount of their Subscriptions; and power will be applied for to allow interest at the rate of four per cent. per annum on the deposits and future calls, from the period of the Company's obtaining the required Act of Parliament, until its works shall be in operation; this being warranted by the prospect of a sufficient profit being obtained within the first two years after the Company's incorporation.

Application for Copies of the Engineer's Report, or for Shares, accompanied, in the latter case, by a reference to a member of the Provisional Committee, a Banker, or other respectable parties, may be addressed to the Solicitors, or to the Secretary.

LONDON SEWAGE COMPANY.

THE Engineering Plans have been deposited, and the necessary notices served, and every requirement of the Standing Orders of both Houses of Parliament has been complied with. A very valuable Report by the Engineer has been received and adopted, and which is ready for delivery to the Shareholders and Public.

Applications for Shares or Prospectuses may be made to the Secretary.

ANDREW MARTIN,

Secretary.

January, 17th, 1846.

124, Bishopsgate Street.

PARKIN'S SYSTEM OF LOCOMOTION.

A CHALLENGE TO MR. CUBITT.

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THE objects of the Association are to promote the improvement of the Paving, Cleansing, and Drainage of the Streets, Courts, Alleys, Ways, and Habitations of the Metropolis and other Cities, Towns, and Villages, with a view thereby to ameliorate the condition and contribute to the health of all classes of society.

To collect and disseminate correct information, and to invite the attention of the legislature, municipal authorities, and the public to these important objects.

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To invite the co-operation of men eminent for their scientific and practical experience, and to give encouragement to those inventions which tend to advance the objects of the Association.

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Provisionally Registered, according to Act of Parliament.

Capital, £1,000,000, in Shares of £25 each.

Deposit, £1 7s. 6d. per Share.

THE object of the Association embraces the recommendations of the Commissioners appointed to report on the "Health of Towns, to prevent the interment of the dead in or near the habitations of the living," by establishing two extensive cemeteries on the banks of the Thames, at a convenient distance east and west of the metropolis, which, by their position, in addition to the usual mode of interment, will afford the facility of a more economical conveyance by water. It is also proposed to assist in establishing general cemeteries in the neighbourhood of other towns in Great Britain and Ireland.

In the most crowded thoroughfares of the metropolis, even in the midst of depravity and crime, we see grave-yards towering above us, the pestilential effluvia tainting the very atmosphere in which we are compelled to move and live. Our Christian feelings are continually outraged by revolting details of violated sanctuaries, and gross and horrible indignities offered to the dead, to the great scandal of our national religion and character as a Christian people. Many attempts have been made to remove this nuisance and reproach from among us; and recent events occurring in Spafields, and other burial-grounds of the metropolis as described in the public journals, and in the evidence given before the committee of the House of Commons, have awakened one general feeling of horror and indignation in the public mind, and an anxious desire on the part of the legislature to abolish at once and for ever burials within the limits of the metropolis and other great cities of the empire.

London, and its thickly populated suburbs, number now 2,000,000 of souls, and in no very distant period of time this population must be doubled. Almost all its grave-yards are already full, and the newly-established cemeteries rapidly filling; it is obvious, therefore, that cemeteries of a sufficient magnitude are required, in order to meet the exigencies of the times, as well as the wishes of the legislature; and that they should possess every facility for ensuring economy of expenses and adaptation to every class of society, united with decent solemnity and religious observance, that while they meet the requirements of the poor, they can be made to administer to the feelings and wishes of the wealthy; and the promoters believe that the public will see and duly appreciate the great advantages opened by conveyance of the corpse to the cemeteries by water, this being auxiliary to, and not as replacing the present mode, and introduced more with the view

of general accommodation and securing economical charges, than for any purposes of novelty and display.

Extensive tracts of land have already been selected, having a fine river frontage for the reception of funerals by water, and approaches by land for the usual mode of interment; they unite position with every facility of access. Plans are also laid down for establishing stations, and houses for the reception of the corpse previous to its burial, a boon which cannot fail being appreciated by those who, from aversion, fear, or necessity, are desirous of having the dead immediately removed from their habitations; it will also meet the views of the "Health of Towns Committee," and assist the legislature in rendering it compulsory with the humbler classes to remove the decomposing corpse from rooms necessarily inhabited by the living. Steam and other boats will be constructed, and appropriately fitted up for the purpose of conveying the corpse, attendants, and mourners to the cemeteries.

Cemeteries have become highly popular in this country, and most deservedly so; for while they offer a sacred asylum for the mortal remains of those we admire, esteem and love, they may be made to afford to the inhabitants of crowded cities, when they are judiciously constructed, the means of health, of serious contemplation, and innocent recreation. In the neighbourhood of London they are rendered strikingly attractive to the eye, and to a certain extent are well adapted for the purposes of burial; but still, in the absence of the facilities now proposed, they are disposed at such an inconvenient distance as to place them wholly beyond the pecuniary means of the humbler classes, except in their immediate neighbourhood; they are also small when compared to the requirements of this and future generations. The grounds of the Great Metropolitan Necropolis will be laid out in a beautiful and appropriate manner, equally attractive to the living and suited to the sad solemnities of the dead, care being taken to preserve the solemn character of the place: thus, to the stern character of the ancient will be added the beauties of the "Pere la Chaise," and of our existing English cemeteries. They will be portioned off in deference to the feelings of sects and religions, and as their great extent renders them fitting for, so they will be opened to, the sad remains of mortality without reference to country or creed.

In order to carry out the recommendations of the Parliamentary Committee to the fullest extent, and to enable the legislature to abolish burials within the crowded parts of the metropolis, the association proposes to assume the right (when required to do so) to enter into public or private contracts for burials, with or without the co-operation of other public bodies or private individuals, to supply the material and to adopt such other measures as may be found necessary to ensure economy of burial to those who desire it, as well as due decorum of conveyance and interment of the deceased. It is proposed to erect in each ground a large pyramid, consisting of arched recesses, or catacombs. Groups of chapels, terraces, raised walks, rows and clumps of trees, and beds of flowers will also add to the general magnificence. It is also contemplated to erect in the centre of the group of chapels, in one of the cemeteries, a grand national mausoleum or temple, on the principle of Westminster Abbey, for the burial, the monuments, or the tablets of those who may be considered worthy of public testimonial; a permanent council of noblemen and gentlemen being

appointed to decide on the respective claims to this honour previous to its being granted.

The plans for the chapels, entrance-gates, and ornamental disposition of the grounds, are now under serious consideration; and the catacombs will be built with the view of affording accommodation on a scale of charges the most economical, or as consonant with the views of the friends of the deceased. Grounds for interment at various rates, either in perpetuity for families or separate bodies, may be obtained, with every facility to erect such memorials as their surviving friends may deem fit, in conformity to the rules of the association. From the fullest and most accurate information, and calculations made, the promoters, in the event of the bill for the abolition of burials in the crowded parts of the metropolis passing this session of Parliament, are prepared to state that the grounds will be effective for constant burial of twice the present population; while the charges for interment will be one half, and in many instances two thirds, less than now paid by the several classes of the community.

The capital of the association will be £1,000,000, with power to increase it, the original Shareholders having the preference of the newly created Shares. It will be divided into 40,000 Shares of £25 each, a deposit of £1 7s. 6d. per Share to be paid at the time of subscribing. This will be followed up by calls, duly noticed, of £2 per Share, as may be required, two months' notice being given of each call.

So soon as a committee of gentlemen capable of carrying out the objects contemplated is formed, prospectuses will be issued; in the mean time all further information may be obtained at the Offices of the Association, 32, Moorgate Street, City.

JOHN BOND, M.D., &c., Secretary.

RAILWAYS.

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PROSPECTUS.

PUBLIC attention is naturally directed to the continent of India, in these times of speculative enterprise, as a new and unexplored field for the investment of capital, from the conviction that the yet undeveloped resources of its wealth, its industry, and its productive power, will richly and amply remunerate the speculator.

The millions who people that vast and fertile region of the globe, only require the impulse of enterprise to call forth the almost boundless riches that immediately surround them; and were they possessed of that great artery of civilization—railroads—the current of their political and industrial strength would instantly become enlarged, not only in volume, but in richness also.

If we glance at the continent of India, we find our power mainly concentrated on three points on the coast, Calcutta, Madras, and Bombay; which form an irregular triangle, the base of which may be termed Madras and Calcutta, and the apex, Bombay; and the great bulk of the wealth and physical power of India is inclosed within that figure, therefore it becomes a matter of the prime importance to have the intersecting lines of our empire as perfect as possible, so that our power may be felt at every point, and our influence extended to every part. From the want of this concentrative power, India has become almost a burden to the mother-country, barely paying its executive administration, in lieu of being a lucrative possession, a wealth-yielding appendage.

To obviate this great and glaring defect in our Anglo-Indian empire, it is only necessary to extend to her the same means of communication that we possess at home; to bring, in short, the great centres of her internal power nearer to each other; and instead of depending upon her rivers as lines of

traffic and intercourse, she ought to have a well-arranged net-work of Railway extending over her surface ; then she would increase in power, and augment in riches.

THE DIRECT BOMBAY AND MADRAS RAILWAY is projected to carry out, in part, this noble scheme ; and a single glance at the map must convince the most cautious calculator that the project is well founded, and the line of route happily chosen to effect its purpose ; as it will intersect the most wealthy and industrious provinces of the Continent of India, the Carnatic and the Mysore, which abound in natural productions, in manufacturing industry, and in agricultural wealth.

The two great presidencies of Madras and Bombay will be brought within a few hours' journey of each other, and not months as heretofore : and in lieu of vessels making a long and dangerous voyage of some 5,400 miles, half round the entire peninsula of India, their costly cargoes may be easily conveyed to Bombay for shipment in a less number of hours than the voyage occupies days ; thus avoiding all risks of damage, peculation, wear and tear, &c., &c., which in general characterize these voyages. The saving of insurance will also be immense—a matter of first-rate importance.

In a political and military point of view the line must be of almost incalculable importance, as it will intersect the great depôts of the East India Company, and afford at all times a ready and prompt conveyance for troops, baggage, stores, artillery, and the cumbrous *materiel* which invariably attend their march ; and, above all, it will prove of the utmost utility to the Indian Government, in the distribution of their forces among the various military posts of the three Presidencies, and for their rapid concentration on any required point, the want of which was so distinctly shown in the late calamitous events on the Sutlej, and the consequent fearful sacrifice of life.

The district traversed by the DIRECT BOMBAY AND MADRAS RAILWAY contains upwards of thirty millions of inhabitants ; and the wants and industry of this large body already yield a considerable tonnage, although in a comparative state of barbarous communication. In the report of the Bombay Chamber of Commerce, we find that the traffic to and from that city amounts to 187,343 tons annually, consisting chiefly of cotton and salt. These two items form merely a fraction of the requirements of the Indians. Bombay is unapproachable except by a dangerous and expensive sea-board, and a cheap and safe communication can alone render available her internal resources. Cotton has now to be transported 500 miles to the coast, to reach Bombay for shipment. A railway would naturally obviate so circuitous and expensive a route. Some idea may be formed of the destruction and delay occasioned by these journeys, when we state that the cotton is carried on the backs of oxen, at the rate of ten miles per day, which enormously augments its shipment price. The present cost of conveyance from Nagpore to the port of shipment is from 14*l.* to 20*l.* a ton, and the charge by rail of twopence a ton per mile, would amount to 4*l.* 3*s.* 4*d.*—a considerable difference. The same facts prevail in regard to silk, and other commodities which are of the first importance to our manufacturing interests.

This line will also bring nearer to us the fine island of Ceylon, with all its rich productions, commencing as it will at Madras, and taking in its

course Arcot, Vellore, Bangalore, Oscotta, Bangalore, Sera, Doddairee, Hurrloor, Chitteldroog, Myacunda, Anagee, Harryhur, Shahnoor, Hullyhall, Hoobly, Darwar, Taloor, Gohauk, Rybaugh, Meeruj, Kolapoor, Satara, Poona, Poonah, Tulligaon, Singhur, Callianee, Baaseen, Salsette, and Bombay; thus absorbing the interests and traffic of upwards of 30 first cities, and from 400 to 500 towns, in the most densely populated India, facilitating the conveyance of cotton, coffee, tobacco, or silk, senna, gum, cassia, dye-woods, hides, furs, lac, betel nut, spices, fire-wood, charcoal, coal, corn, and various kinds of grain, &c., &c., and the imports of treasure, manufactured and other goods, ice, &c.

The passenger traffic alone, according to reasonable and careful calculation, will yield an ample per centage on the capital raised; and the immense tonnage of merchandize and raw produce must insure to the Shareholders a profit beyond even the first-rate lines of England.

The promoters of the present scheme have received intelligence from their agents that the line presents no engineering difficulties, and that the cost of construction must be moderate, labour being plentiful, and the purchase of land comparatively trifling, and wood, coal, and iron abounding in the immediate neighbourhood of the whole line.

The management of the Company will be vested in a Board of Directors in London, in connexion with an influential branch both in Bombay and Madras.

Care will be taken, in the Act constituting the Company, that the responsibility of the Shareholders shall be limited to the amount of their subscriptions; and four per cent. interest will be paid upon the capital advanced up to the time of construction. The Directors also beg to call especial attention to the principle by which allottees in this Company are protected from an objectionable responsibility, by the condition that their application for Shares will not be considered binding upon them, should they afterwards decline to pay the deposits required at the time specified in their letters of allotment.

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April 21, 1846.

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The RAILWAY REGISTER and PORTFOLIO will consist in its enlarged form, of SEVEN SHEETS instead of FIVE, as at present, and the character of the work will be greatly improved, so as to secure the continuance of that high patronage which, during the last three volumes, has been bestowed on this work—one of the oldest Railway Publications, and the only one of its class.

The pages of the RAILWAY REGISTER already include a mass of information not to be found elsewhere, and the promise of the original conductor is thus performed. From the peculiar form of the work, and its combining such numerous maps, it constitutes the most valuable record of the late period of speculation, and the best Magazine of reference in preparation for the coming season of railway activity. Railway officers in particular have appreciated the value of this undertaking, and have given it large support, the continuance of which is earnestly requested, and will be duly merited. Now that the projection of new undertakings has temporarily ceased, the same class of illustration, and the same features of interest cannot be presented; but advantage will be taken of this opportunity to carry out an undertaking strongly urged on the proprietor by some of the most eminent men in the railway world, and the want of which has been very much felt—the publication of a complete series of prospectuses of railway and other undertakings. This will require some time to organize, and a long time to complete; but it is presumed it will stamp a character of value on the RAILWAY REGISTER, which will greatly enhance the advantages it already possesses as a work of standard reference.

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AGENTS.

Bombay.—Messrs. Nicoll and Co. Madras.—Messrs. Binny and Co.
SECRETARY.—James Ward, Esq.

PROSPECTUS.

PUBLIC attention is naturally directed to the continent of India, in these times of speculative enterprise, as a new and unexplored field for the investment of capital, from the conviction that the yet undeveloped resources of its wealth, its industry, and its productive power, will richly and amply remunerate the speculator.

The millions who people that vast and fertile region of the globe only require the impulse of enterprise to call forth the almost boundless riches that immediately surround them; and were they possessed of that great artery of civilization—Railroads—the current of their political and industrial strength would instantly become enlarged, not only in volume, but in richness also.

If we glance at the continent of India, we find our power mainly concentrated on three points on the coast, Calcutta, Madras, and Bombay, which form an irregular triangle, the base of which may be termed Madras and Calcutta, and the apex Bombay; and the great bulk of the wealth and physical power of India is enclosed within that figure, therefore it becomes a matter of the prime importance to have the intersecting lines of our empire as perfect as possible, so that our power may be felt at every point, and our influence extended to every part. From the want of this concentrative power, India has become almost a burden to the mother country, barely paying its executive administration, in lieu of being a lucrative possession, a wealth-yielding appendage.

To obviate this great and glaring defect in our Anglo-Indian empire, it is only necessary to extend to her the same means of communication that we possess at home; to bring, in short, the great centres of her internal power nearer to each other; and instead of depending upon her rivers as lines of traffic and intercourse, she ought to have a well arranged net-work of railway extending over her surface; then she would increase in power, and augment in riches.

The Direct Bombay and Madras Railway is projected to carry out, in part, this noble scheme; and a single glance at the map must convince the most cautious calculator that the project is well-founded, and the line of route happily chosen to effect its purpose; as it will intersect the most wealthy and industrious provinces of the continent of India, the Carnatic, and the Mysore, which abound in natural productions, in manufacturing industry, and in agricultural wealth.

The two great Presidencies of Madras and Bombay will be brought within a few hours' journey of each other, and not months as heretofore; and, in lieu of vessels making a long and dangerous voyage of some 5,400 miles, half round the entire peninsula of India, their costly cargoes may be easily conveyed to Bombay for shipment, in a less number of hours than the voyage occupies days; thus avoiding all risks of damage, peculation, wear and tear, &c., which in general characterise these voyages. The saving of insurance will also be immense—a matter of first-rate importance.

In a political and military point of view, the line must be of almost incalculable importance, as it will intersect the great depots of the East India Company, and afford at all times a ready and prompt conveyance for troops, baggage, stores, artillery, and the cumbrous material which invariably attend their march, and, above all, it will prove of the utmost utility to the Indian Government, in the distribution of their forces among the various military posts of the three Presidencies, and for their rapid concentration on any required point, the want of which was so distinctly shown in the late calamitous events on the Sutlej, and the consequent fearful sacrifice of life.

The district traversed by the Direct Bombay and Madras Railway contains upwards of 30,000,000 of inhabitants; and the wants and industry of this large body already yield a considerable tonnage, although in a comparative state of barbarous communication. In the report of the Bombay Chamber of Commerce, we find that the traffic to and from that city amounts to 187,343 tons annually, consisting chiefly of cotton and salt. These two items form merely a fraction of the requirements of the Indians. Bombay is unapproachable except by a dangerous and expensive sea-board, and a cheap and safe communication can alone render available her internal resources. Cotton has now to be transported 500 miles to the coast, to reach Bombay for shipment. A railway would naturally obviate so circuitous and expensive a route. Some idea may be formed of the destruction and delay occasioned by these journeys, when we state that the cotton is carried on the backs of oxen, at the rate of 10 miles per day, which enormously augments its shipment price. The present cost of conveyance from Nagpore to the port of shipment, is

from £14 to £20 a ton, and the charge by rail of 2d. a ton per mile, would amount to £4 3s. 4d., a considerable difference. The same facts prevail in regard to silk and other commodities, which are of the first importance to our manufacturing interests.

This line will also bring nearer to us the fine island of Ceylon, with all its rich productions, commencing as it will at Madras, and taking in its course Arcot, Vellore, Bangalore, Oscotta, Bangalore, Sera, Dodairea, Hurrioar, Chitteldroog, Myacunda, Anagee, Hurryhur, Shahnoor, Hullyhall, Hoobly, Darwar, Taloor, Gohauk, Rybaugh, Meeruj, Kolapoor, Satara, Poona, Poonah, Tulligaon, Singhur, Callianee, Basseen, Salsette, and Bombay; thus, absorbing the interests and traffic of upwards of 80 first-rate cities, and from 400 to 500 towns, in the most densely populated part of India, facilitating the conveyance of cotton, coffee, tobacco, opium, sugar, silk, senna, gum, cassia, dye-woods, hides, furs, lac, betelnut, saltpetre, spices, firewood, charcoal, coal, corn, and various kinds of grain, indigo, &c., and the imports of treasure, manufactured and other goods, salt, ice, &c.

The passenger traffic alone, according to reasonable and careful calculation, will yield an ample per centage on the capital raised; and the immense tonnage of merchandise and raw produce must insure to the shareholders a profit beyond even the first-rate lines of England.

The promoters of the present scheme have received intelligence from their agents that the line presents no engineering difficulties, and that the cost of construction must be moderate, labour being plentiful, and the purchase of land comparatively trifling, and wood, coal, and iron abounding in the immediate neighbourhood of the whole line.

The management of the Company will be vested in a Board of Directors in London, in connexion with an influential branch both in Bombay and Madras.

Care will be taken, in the Act constituting the Company, that the responsibility of the shareholders shall be limited to the amount of their subscriptions; and four per cent. interest will be paid upon the capital advanced up to the time of construction. The Directors also beg to call especial attention to the principle by which allottees in this Company are protected from an objectionable responsibility, by the condition that their application for shares will not be considered binding upon them, should they afterwards decline to pay the deposits required, at the time specified in their letters of allotment.

A reserve of 40,000 shares will be made for India, which the projectors have much pleasure in stating will scarcely suffice for the demand already made.

Applications for shares, in the annexed form, may be addressed to the Secretary, at the Company's offices, 58, Fenchurch-street, and to the undermentioned share brokers and agents:—Messrs. Joshua Hutchinson and Son, Lothbury; Messrs. Hughson and Dobson, Frederick-street, Edinburgh; Mr. Edward Dickenson, Liverpool; Messrs. Borthwick, Campbell, and Co., Glasgow; Mr. J. R. Massey, 6, Temple-street, Birmingham; Mr. Thomas J. Greaves, St. Ann's-square, Manchester; Messrs. Edward Morgan and Co., Norwich; Messrs. Borthwick and Co., Newcastle-on-Tyne; Mr. W. H. Land, Bristol; Messrs. Turnbull and Maister, Hull; Messrs. Dodsworth and Alderson, York; Messrs. Muncester and Wilson, Sheffield; Mr. John Caldecott, Bridge-street, Chester; Mr. W. Oliphant, Perth; Messrs. Elsgood and Harrison, Leicester; Mr. J. Clark, jun., Southampton; Messrs. Tyeth and Luscombe, Plymouth; Mr. Percy Bolger, Gardiner-street, Dublin; Mr. Thomas Sandford, Exeter; Mr. W. Miles, Worcester; Messrs. White and Son, Leamington and Warwick; Messrs. Browne and Clark, Coventry; Mr. J. W. Carr, Colchester; Messrs. Lang and Brown, Glasgow; Messrs. Smyth and Du Bedats, Royal Exchange, Dublin; Mr. Richard Richardson, Halifax; Messrs. Smith and Perfect, Leeds; Mr. J. Hurry, Spalding; and Mr. James Stokes, Cheltenham.

May 13th, 1846.

JAMES WARD, Secretary.

FORM OF APPLICATION.

To the Provisional Committee of the Direct Bombay and Madras Railway. Gentlemen,—I shall feel obliged by your allotting to me _____ shares of £50 each in the above Company; and if the deposit be not paid on or before the time specified in your letter of allotment, you may consider this application void.

Name in full.....
Residence.....
Trade or profession.....
Date.....
Reference.....

DIRECT BOMBAY and MADRAS RAILWAY.—Offices, 58, Fenchurch Street.—No further applications for shares can be received after Thursday, May 28, 1846.

By order, JAS. WARD, Secretary.

DIRECT BOMBAY and MADRAS RAILWAY.—The Committee are compelled to state that the demand for shares has been so very great, in consequence of the non-liability expressed in the form of application, that none but those accompanied with the most unexceptionable references can be attended to.

FORM OF APPLICATION.

To the Provisional Committee of the Direct Bombay and Madras Railway.

Gentlemen,—I shall feel obliged by your allotting to me _____ shares of £50 each in the above Company; and if the deposit be not paid on or before the time specified in your letter of allotment you may consider this application void.

Name in full.....
Residence
Trade or Profession
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DIRECT BOMBAY and MADRAS RAILWAY.—The Committee beg to state that they shall proceed to ALLOT the SHARES immediately after the 28th of May, 1846.

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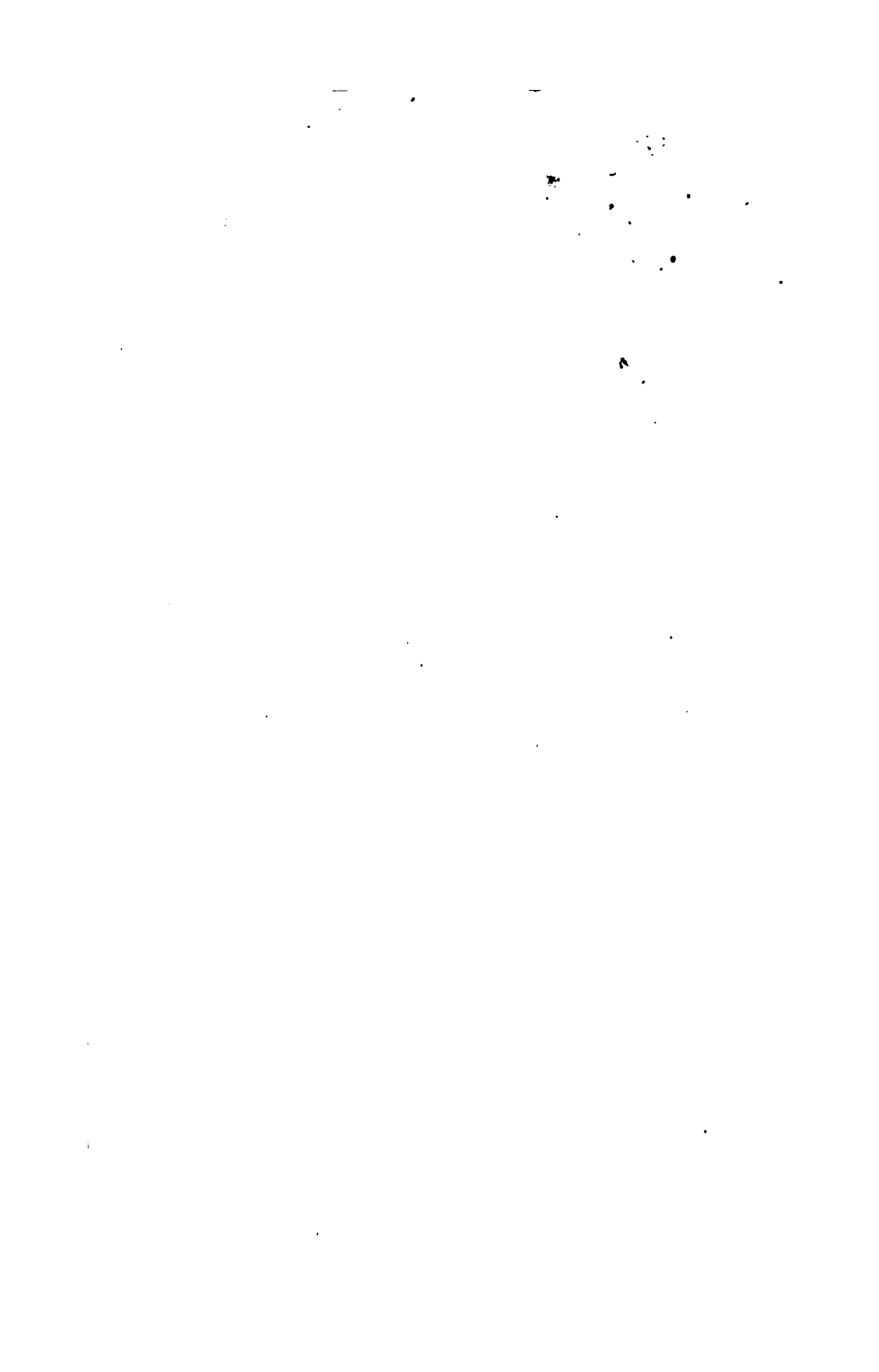
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